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ABSTRACT

The nature and rationale of the BLADE (Basic Literacy for Adult Development) Program are explained in this instructor's manual, which also provides an analysis and index of the content. The BLADE Program raises adults to a measured Grade 5.0 level in reading, other communication skills, and mathematics. The program is completely individualized: it tells the student what he is to learn, provides the materials and dynamics for learning it, tells him how to use the instructional sequence, tells him how well he should learn the content, and gives him the means to determine if he has met these criteria before he is tested on his progress. The program is constructed to meet expressed behavioral objectives, and is sequenced on the spiral curriculum plan. The instructional materials are original and designed specifically for the BLADE Program. They are adult in context. The 115 instructional books vary in size. The media include audiotapes, texts, study sheets, study cards, exercises, and some manipulative items. The two most unique features of the program are the tape-text combination and the cueing system. This manual discusses the units of Communication, Levels 1-4; non-Blade materials concerned with communication; Mathematics, Levels 1-4; non-Blade optional materials on mathematics; Facts for Effectual Living; Learning How to Learn; Timed Practice Sessions; Skill and Knowledge Required for Enrollment; Tests to Establish Suitability for Enrollment; The Entrance Levels; Tests for Placement in the BLADE Program; Special Skill and Activities Required of the Instructor; The Classroom Kits of BLADE Material; Equipment Needed; Time Required to Complete the Program; and Implementing the Program in the BLADE classroom. Fourteen appendixes are included. (DB)

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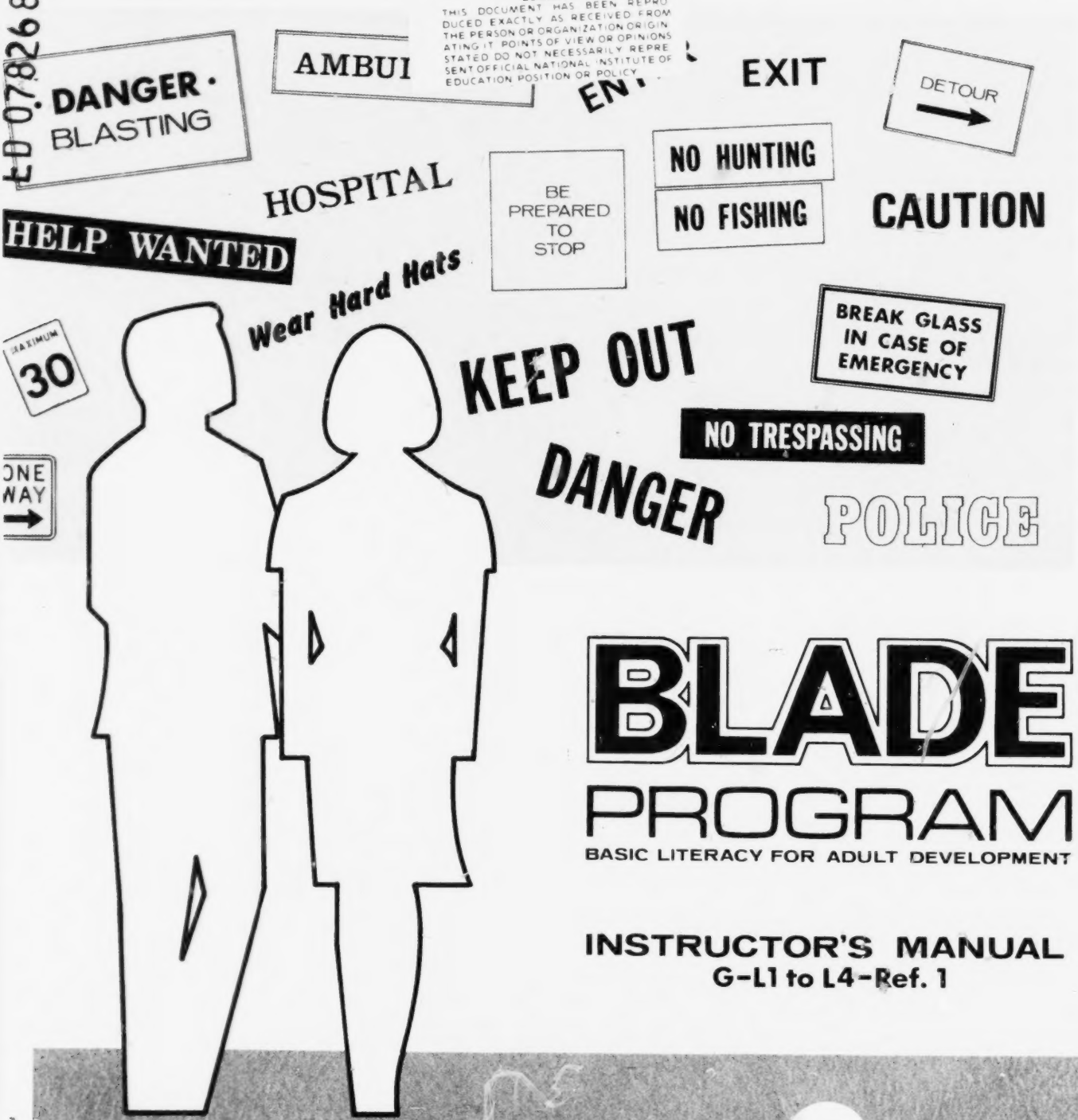

BLADE PROGRAM

BASIC LITERACY FOR ADULT DEVELOPMENT

INSTRUCTOR'S MANUAL

G-L1 to L4-Ref. 1

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G - L1 to L4 - Ref.1

THE BLADE PROGRAM

BASIC LITERACY FOR ADULT DEVELOPMENT

INSTRUCTOR'S MANUAL

Training Research and Development Station,
Department of Manpower and Immigration,
Prince Albert, Saskatchewan, Canada.

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FOREWORD

The BLADE Program was initiated at Saskatchewan NewStart, and completed at the Training Research and Development Station.

This second edition is a revision based on experience with the previous edition in the NewStart experimental classroom and in several adult training institutions in various parts of Canada.

Many associates have contributed to the work in its various stages. Referring to the previous edition, Murdine Thorpe prepared the instructional units for Levels 2 to 4 of the Communication course; Rita Bouvier assisted with the Mathematics course, Iris Lang, Edward Mardell and others contributed preliminary work, and Wayne Brown recorded the audiotapes; Judith Patenaude did the major portion of work on The Bare Facts books and recorded the related audiotapes; Rita Bouvier and Terence Herdin prepared the stories in The Indian Storyteller Series; the art work on the book covers was done by Robert Barkman and Alan Hovdebo; Terence Herdin contributed materials for the Across Canada Series; all of this work was greatly supported by Vernon Mullen, who also compiled and edited the Across Canada Series, created and recorded the audiotapes, and supplied additional material for that series.

The typing of the first edition was done mainly by Sharon Curniski, and the second edition by Paulette Olexyn, both assisted by others.

In the second edition, most of the instructional units have been revised. The Communication units in Levels 2 to 4 have been augmented by about eighty stories, practically all prepared by Dallas McQuarrie; additional supplementary reading books were prepared by Ella Anderson and Pauline Clavier, and some further stories were prepared by Terence Herdin; Pauline Clavier assisted generally with the Communication course, and Judith Patenaude with the Mathematics; new audiotapes for the instructional units were recorded by J. J. Cennon; Eleanor Hill and Celine Shearer assisted with the preparation of the spelling course.

For many of the improvements in the second edition we are indebted to reports from instructors who used the earlier version: Audrey Montey and Aline Courteau in the NewStart experimental classroom; James Bogard at Wollaston Lake, Saskatchewan; Allan Thompson at Grouard, Alberta; Judy Callbeck at Fort Resolution, Northwest Territories; Lynn and Gail Tompkins at Saint John and Fredericton, New Brunswick; Pauline Russell, Riley Kendall and Edward Brown at Stephenville, Newfoundland.

Naida Waite,
Literacy Program Developer,
Training Research and Development Station.

January, 1973

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INTRODUCTION

The purpose of this manual is to explain the nature and rationale of the BLADE Program, and to provide a convenient analysis and index of the content.

Since detailed notes to the instructor appear throughout the instructional unit books, the manual has been written mainly in general terms.

The BLADE Program

Basic Literacy for Adult Development

INSTRUCTOR'S MANUAL

The Program - What It Is and What It Does

The BLADE Program raises adults to a measured Grade 5.0 level in reading, other communication skills, and mathematics. It also teaches the student how to go about the process of learning, and it provides some basic facts for effectual living in a literate world.

It is completely individualized: it tells the student what he is to learn, provides the materials and dynamics for learning it, tells him how to use the instructional sequence, tells him how well he should learn the content, and gives him the means to find out if he has met these criteria before he exposes himself to an informal test of his progress.

The instructor has an important role in the learning process - not as the giver of all information, but as the guide, tutor and encourager of the student, and judge of his performance. The student consults the instructor at any time when he needs specific help. At strategic points he is directed to consult with the instructor.

The program is constructed to meet clearly expressed behavioural objectives. It is sequenced on the spiral curriculum plan: a content area is dealt with several different times, on progressively challenging levels.

The media include audiotapes (cassettes), texts, study sheets, study cards, exercises, and some manipulative items. The instructional texts have two-column pages: the left side is what the student looks at, and the right side is the verbatim text of the tape relating to the corresponding material on the left side. The tape does not "read the book," but keeps the student responding and interacting in a variety of ways.

The two most unique features of the Program are the tape-text combination and the cueing system. The cueing shows the student how a word is pronounced, thus helping him to recognize the word.

This is a sample of a cued sentence.
z ɛ v ū sɛ

The cueing is fully described in Appendix V and in the front of the BLADE Dictionary. The content, sequencing, methods, techniques, devices, formats, and broad approaches for the BLADE Program were selected on the basis of observation in many adult literacy classrooms, talks with instructors and students, trials in the Saskatchewan NewStart experimental classroom, and reports of research published and unpublished. The program culminates many years of information gathering on the part of the developer, and the gradual forming of hypotheses, opinions and convictions. These were all reflected in the decisions made during development. Some of these decisions and the background that led to them are described in Appendix I.

The BLADE Materials - General Description

The instructional materials are all original, and designed specifically for the BLADE Program. They are adult in context, and they utilize adult mental abilities.

The 115 instructional books vary in size from about 20 to 50 pages. This format provides a frequent sense of completion on the part of the student, and facilitates the simultaneous use of one set of materials by many students, each working at his own level.

The instructional materials are not consumed in use, but remain indefinitely re-usable. Notes to the instructor appear throughout the texts. The notes are numbered and boxed, and are not included on the tape.

The behavioural objectives of each Unit are listed on the cover, and each one is repeated in the text at the beginning of the sequence which deals with it. These, too, are boxed and not included on the tape, although an introductory paragraph is provided for the student in each instance.

The table of contents is on the cover - visible at a glance. It provides page references for the objectives and other items to which the instructor might wish to refer.

Page numbers of the Unit book are announced on the Unit tape, for convenience in locating a particular instructional sequence.

The student is responsible for his own learning process, and for assessing his own performance. He marks much of his own work. However, the material is designed to keep the instructor in close touch with the student's achievements and difficulties. There are periodic "checks" by the instructor, and he marks all the formal exercises (which are actually informal tests), and the Unit End Test which occurs on the completion of each book or "Unit". The student asks for help whenever he needs it.

The rationale is directed toward success for the student. He does not ask for an exercise or test until he believes he is well prepared for it. Often the instructor is counseled to quiz him orally and look at his written work, to insure that he is ready. This avoids failure and repetition of exercises and tests.

The student keeps his completed exercises in his binder, as a record of achievement and for reference purposes.

Spelling is included at all levels of Communication. The student gradually builds up his own copy of the spelling lists as he progresses through the Units. (For the instructor's reference, the complete list appears in the Instructor's Manual Supplement.)

Since many adults who cannot read are more advanced in mathematics, the mathematics materials are designed so that reading is not required until the beginning of Level 4 - Measurement and Fractions.

Communication and Mathematics are each arranged in Levels numbered 1 to 4. In Mathematics, these levels represent the usual progression through the subject area. In Communication, Level 1 takes the student to approximately a "Grade 4" reading competence; Levels 2 and 3 increase his reading vocabulary and skill, and his writing and spelling competence; Level 4 drops the cueing and gives him experience in practical applications of what he has learned.

There are supplementary reading books and other items detailed in the list of materials in Appendix VI.

"Facts for effectual living" are contained in the "Bare Facts" set of 14 booklets on various topics. These may be used for oral discussion or as reading assignments. Information useful to the student is included informally and unobtrusively from time to time throughout the materials. "Learning how to learn" is emphasized, where relevant.

The orientation of all the materials is adult, Canadian, and practical.

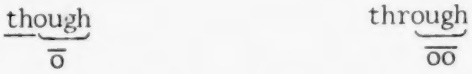
Communication, Level 1

The approach is linguistic: The sounds of English are used as a key to word recognition; the structures and functions of the language are emphasized as a key to meaning. There is some use of metered verse as a guide to the rhythms of English.

From the beginning, letters and sounds are learned in the context of words. As soon as possible, words are learned in the context of sentences, then paragraphs, then stories.

The student learns a word first by analyzing its sounds; but soon afterward he is required to recognize and say that word instantly.

The cueing system overcomes the inconsistencies of English spellings. Even words like "though" and "through" can be read early in the program when cued:



The cues appear underneath the normally-spelled word, so that the student actually reads the normal spelling and uses the cues simply to help him recognize the word.

If he is to recognize the word, it must already be present in his speaking or listening vocabulary. Therefore, the Program presupposes an adequate (though not necessarily complete) command of English.

Reading materials in Levels 1 to 3 have each page printed twice - cued and uncued. For convenience, the cued and uncued versions face each other on a two-page spread, and identical line positions are maintained for all words.

At first, the student reads from the cued version until he is sure of the words and meaning; then he reads from the uncued version. Later when he becomes more familiar with the words and spelling patterns, he may choose to attempt the uncued version first, consulting the cued pages only when necessary.

Throughout Level 1 Communication, while the student is learning the sounds of the letters, they are referred to only by sound, not by name. At the end of Level 1, when he has learned all the letters and their common sounds, and all the cues, the Program presents the names of the letters, alphabetic order, and the BLADE Dictionary.

The spelling of very irregular words is not required in Level 1.

The "spelling words" in each Unit in Level 1 are based on the instructional content of that unit.

As soon as the student can write sentences, he studies sentences containing the spelling words. In this way, (a) he is kept continually aware of sentence structure and punctuation, (b) he has the added learning advantage of a meaningful context, and (c) words previously learned have been included in the sentences as an automatic review.

The main reason for including spelling in Level 1 is to help the student to focus on the word patterns he is currently learning. It is not expected that he will remember the spelling of all the words. However, he has his cumulative spelling list for reference, and the words learned in Level 1 are repeated in the spelling sentences in subsequent levels.

Communication, Levels 2 and 3

Levels 2 and 3 deal with such subjects as plurals, contractions, abbreviations, suffixes, prefixes, context clues, interpreting signs and labels, synonyms, antonyms, meaning from context, recalling details and so on.

Each unit involves at least two short stories or articles, written for the Program, and presented in cued and uncued form.

"Spelling words" are selected from each story, and the sentences are related to the story.

Occasionally a spelling sequence is directly related to the instructional content (e.g. plurals, suffixes, etc.).

In Level 2 the student begins to give written (or printed) answers to questions about some of the reading selections. This is further developed in Level 3, as a prelude to more original efforts in writing.

It is desired to avoid prolonged dependence on the cues. However, unless the student uses them to a considerable extent, he will not learn them well enough to profit from them. Therefore, the Program seeks to effect an optimum balance between the use and non-use of the cues.

Since the student never leaves a reading selection until he can read it fluently without cues, he begins to achieve independence from the outset.

Cueing is an all-or-nothing commitment. It would be misleading to cue only part of a sentence or paragraph. Therefore, the gradual withdrawal of cues in Levels 2 and 3 has been done en bloc for sequences containing only familiar vocabulary, while the cues are still provided in other sequences. (However, this does not preclude the cueing of one or two difficult words on a page of otherwise uncued material.)

The unit that takes the student from printing to writing has been placed as Unit 8 in Level 4, preceding the unit on letter writing, which depends on it. However, Unit 8 of Level 4 may be used at any time during Levels 2 or 3. It depends on prior completion of Level 1.

The BLADE supplementary reading materials are introduced in Levels 2 to 4. Some are assigned by the Unit tape-text, and it is assumed that others will be assigned by the instructor if the student does not use them spontaneously.

Speaking is part of the Communication course. Some adult literacy students are inclined to remain silent in a group. By the time such a student reaches Level 3 he may be more willing and able to participate.

It is desirable that group discussions be conducted daily, as soon as possible. The Bare Facts booklets provide useful vehicles for this, as would any topic of common interest raised by members of the group or by the instructor.

Besides providing practice in communication and an opportunity to present useful information in a dynamic way, the daily discussion periods break the pattern of continuous "book work", which should be broken periodically. This can also be accomplished through periods of relaxation, educational group games, role-plays (e.g. the job interview) inviting a speaker from "outside", showing films, the instructor reading to the group, timed practice sessions, and so on. Some suggestions are contained in Appendix II.

The suggestion was that the instructor read to the group. The Program is designed to avoid subjecting the student to frightening or upsetting experiences. He is never required to read aloud to the group. Even when reading aloud to the instructor in a test situation, he should do this in a corner away from the others, preferably with his back to them.

Of course, if a student is proud of his reading and offers spontaneously to read something aloud to the group, that is different. But he should not be asked to do so, and there should be no call for "volunteers" to do so.

In the same vein, the instructional units in the early levels always tell the student beforehand if a written task is going to be checked by the instructor. Then he can be extra careful of his writing, etc. if he wants to.

Communication, Level 4

Here, the cueing, which was reduced in Level 3, is discontinued.

A standard classroom dictionary is introduced.

The curriculum spiral for some subject areas that were dealt with in Levels 2 and 3 is continued. Useful applications of the reading skills are fostered in Units dealing with filling out forms, writing letters and notes, reading newspapers and books, using the telephone and the telephone directory, and so on.

The Unit on writing in cursive script is placed before the unit on letter writing, but it may be used at any time after the student has completed Level 1. The optimum time during this period is when the student expresses a desire, or shows a tendency to connect the printed letters.

It is assumed that non-BLADE materials will be gradually introduced by the instructor while the student is working in Level 4. These might include the Reader's Digest Skill Builders and materials from the Science Research Associates Reading Laboratories.

Other reading certainly should include newspapers, where they are available. (In some cities, yesterday's papers are made available free for classroom use, provided someone will pick them up from the newspaper office). Many activities can stem from newspapers in the classroom: reading practice, mathematics ("which is the better bargain . . . . "), discussion, etc. The sports pages may be highly motivating to some slow readers.

Where newspapers are not available, perhaps the instructor could find time to prepare a periodic sheet about local events or items in the radio news. These could be on ordinary letter paper. They could be in cued and uncued version.

Non-BLADE Materials (Communication)

A standard classroom dictionary will be required in Level 4. In fact, two different dictionaries would be useful. Please see Appendix VII for details.

Especially in Level 4, some optional non-BLADE materials may be useful. We suggest the two Reader's Digest series, and/or the SRA Reading Laboratory kits described in Appendix VII.

Mathematics, Levels 1 to 4

Experience has indicated that few adult literacy students need to start at the beginning in mathematics. However, the Program provides instruction from the most rudimentary level for the few who may need it.

Level 1 introduces the number system and the money system. Level 2 deals with addition and subtraction. Level 3 covers multiplication and division. Level 4 includes measurement (linear, liquid, weight and time) as well as simple fractions. Operations with money are included at every level, for their motivational value as well as their practical value.

This is not "new math", although a few of those concepts have been used.

There is considerable emphasis on word problems, which are usually found difficult by students whose reading skills have been inadequate - as well as by many other students. The student is helped with the understanding of problems, and with the process of solving them, as well as being trained to use checks and safeguards to insure accuracy.

Another common area of difficulty is fractions. Here, the BLADE Program makes a considerable departure from the usual patterns of presentation and sequence. For instance, the multiplication and division of fractions are introduced before addition and subtraction, because they are easier. (The fact that addition of whole numbers was easier than, and basic to, multiplication is not a good reason for maintaining this order in relation to fractions!)

Another difficulty with fractions is that students "lose" some part of the number sentence part way through the process of finding the answer, especially when addition or subtraction is involved. The BLADE Program establishes a sort of chart or guide which the student marks out and then proceeds to fill in. The "chart" is always the same. It is a pattern of fractional bars which the student completes.

Problems have been related to practical activities, as much as possible.

In the early Units, where the student is learning the number facts of the four basic operations (addition, subtraction, multiplication and division), he makes considerable use of study cards (small flash cards for individual study, with the question on one side and the answer on the other).

After learning a group of facts in an organized way, from a study sheet where the patterns and relationships can be perceived, he needs practice at recalling them in random order. The study cards provide this practice. They are to be "shuffled" from time to time, so that the order will not be memorized.

Students forget number facts they have learned. This is to be expected. In early Units the skill exercises are designed to include each fact learned, and give additional repetition of the difficult ones (e.g. 7 X 9). However, this cannot be continued indefinitely, for other objectives such as problem solving must also be dealt with. Therefore it is suggested that each student use different sets of study cards regularly, for ten or fifteen minutes a day - especially while he is working on one of the units that is composed entirely of problems, and after he begins work in Level 4 mathematics.

Word problems are introduced from the beginning. At first these are just on the tape (and in the tape script column of the text). Later they are provided in cued form for the student who can read them, but are also on the tape for the one who cannot.

Any reading required of the student in Level 4 Mathematics is cued.

The student should not begin Level 4 Mathematics until he has completed Level 1 Communication.

Non-BLADE Optional Materials (Mathematics)

A few optional non-BLADE materials have been found useful. Details will be found in Appendix VII.

Facts For Effectual Living

Practical information is provided informally here and there throughout the BLADE Program, in both Communication and Mathematics. It is provided formally in The Bare Facts books. The fourteen books have the following titles:

Parole in Canada

Workmen's Compensation

If Food Costs too Much

Looking After the Baby

Take It Back

Buying on Credit

Fishing and Hunting Licences

Licences and Permits

Buying at the Store

Finding a Place to Stay

Unemployment Insurance

You and the Landlord

What is Vagrancy

Housekeeping

They follow a common pattern: a "story" (actually a "case study"), followed by questions designed to test and aid comprehension and questions designed to focus on the topic as represented in the story. The latter questions should stimulate discussion, in which the group members pool their information and discover their needs for further information. The book ends with a list of answers to possible questions on the topic, in brief point form, numbered for ease of reference.

It is assumed that, where possible, these books will be used for group work. They are cued for those who can read them, and are on tape for any who have not yet completed Level 1.

If there is too much reluctance on the part of the students for group discussion, the books may be assigned as independent reading.

Not all of the 14 topics will be relevant in all localities. It is expected that the instructor will select those which are relevant to his locality and to his particular group of students. Other topics might be introduced orally.

Learning How to Learn

Throughout his experience of learning the formal content of the Program, the student is learning how to learn. He learns how to memorize, how to discover information, and how to use his reasoning powers.

While this form of learning is incidental, it is not left to chance, and is not left on the sub-conscious level. It is focused on directly and explained, and the student is trained to be conscious of his learning processes and their effectiveness.

Timed Practice Sessions

A common problem among the newly literate students is slowness in reading and writing. If they are to compete in the literate world, these skills need to be speeded up.

A means of doing this and yet protecting the student from undue stress, is through timed practice sessions, in which all students participate at the same time.

These might be used daily, or two or three times a week. A tape in the BLADE kit provides the timing device.

Each student has decided in advance (probably in consultation with the instructor) what he is going to do at the next session. He might read a passage, write his current spelling words, use a set of Mathematics study cards, or do whatever he currently needs to improve.

There are three consecutive equal time periods, and the student does the same thing each time, but tries to accomplish more each time. Only he knows how well he did, and this should remain his private information unless he wants to share it. These sessions are presented as a service to the student, and therefore do not become a threat.

Skill and Knowledge Required for Enrollment

The student must know English well enough to follow the directions in the tape-text and understand what he reads.

He must have a level of intelligence above the "retarded" category, because the materials are not designed for the retarded.

He must not have any severe perceptual or other learning disabilities - and it is to be remembered that these disabilities are apparently not necessarily related to intelligence (whatever "intelligence" is).

Tests to Establish Suitability for Enrollment

Three tests were used for literacy course candidates at the Saskatchewan NewStart experimental classroom:

The Canadian Test of Basic Skills
(a test of academic performance level);

The Raven Progressive Matrices
(a non-verbal test of mental ability);

The Reading/Learning Disability Test
(a test to reveal the presence of serious perceptual or other learning disabilities).

Details will be found in Appendix VIII.

The Entrance Levels

The student, in this individualized program, may work simultaneously at quite different levels in Communication and Mathematics.

In Mathematics, the student may begin at any level, with the proviso that he must complete Level 1 Communication before starting Level 4 Mathematics.

In Communication, if the student is to profit from the program he should begin in Level 1 and learn the cueing. (It is the cueing that helps the student to master the irregularities of English spellings, and provides him with "word attack" skills.) This means that there are two entrance levels: Level 1, Unit 1 for the student who cannot read at all, and Level 1 Unit 11 for the student who can read a little but not well enough to work at the "Grade 5" level in a more advanced program. Persuading this latter type of student to learn the cueing is a challenge to the instructor, for the student could probably read some of the easy words cued in Unit 11 without the cues and therefore he may not realize the potential value of the cues.

To counteract this, the units and end tests contain some challenging words as an exercise in interpreting cues. They are presented in that way, so that the student knows why and how he is being challenged with such difficult words. They are usually presented without context, to ensure use of the cues.

If this does not prove sufficient incentive for the "half-reader" who starts at Unit 11, the instructor might cue a difficult sentence for him daily, and have him figure out how to read it. Once he reaches the later Units in Level 1, the stories will probably keep him motivated and suitably challenged.

Tests for Placement in the BLADE Program

Most teachers have access to various reading tests, and many of these are useful in assessing reading ability.

Of course if the student does not attempt to read or write, he is in the BLADE category, and would begin at Level 1, Unit 1.

In the Saskatchewan NewStart experimental classrooms, the Canadian Test of Basic Skills was used. It tests down as far as the "Grade 3" level, and indicates whether the student could cope with the higher level programs which begin at "Grade 5". The student testing below Grade 5 and weak in word attack skills would begin at Level 1, Unit 11. The student testing slightly below Grade 5, and not seriously lacking in word attack skills, might well be tried in the Grade 5 level, being given some additional remedial work in reading, such as the Reader's Digest Skill Builders and/or the SRA Laboratories.

To facilitate placement in the Mathematics course, a test covering Levels 2 to 4 has been prepared based on the BLADE curriculum and similarly sequenced. This is in the BLADE kit. If the student cannot attempt the test, he is given the end test (or part of it) for each Unit in Level 1 and placed according to the results. (Since few students require Level 1, this will not impose too greatly on the instructor's time.)

Each item in the Mathematics Placement Test is designated as to the level and unit it represents. If the student is not successful with an item, he can then be given the end test for that Unit, and be placed in the Unit if he does not succeed.

If the placement test shows a scattering of right and wrong answers, the student might be placed in the unit where he made his first wrong answer, and work his way through the course, because he evidently needs the practice.

When the student fails a test, that Unit is his starting level - unless it is dependent on some pattern presented in a previous unit, in which case the earlier unit is his starting level. See Appendix VIII.

Special Skills and Activities Required of the Instructor

The instructor must have or acquire an understanding of the sound system of the English language. Many people have never had occasion to be aware of these sounds in an analytical way. A brief analytical description is provided in Appendix IV.

He will need to learn the BLADE cueing system.

If his previous experience has been in a non-individualized program, he will have to begin thinking of each student as an individual; he will learn to depend on the materials for presentation and drill; he will become skillful at analyzing the difficulties of the individual student, tutoring and/or prescribing more practice as may be necessary.

He will depend on the materials, but he will also supplement them. He will assign additional "Math" exercises when needed; he will make up additional "Math" problems (changing only the numbers) for the student who is having difficulty. He will post cued versions of important notices on the bulletin board.

In assigning non-Blade materials that have not been graded for classroom use, the instructor will want to establish the level of difficulty. For this purpose he might use the Fry Readability Graph, which is contained, with instructions, in Appendix IX.

The Classroom Kits of BLADE Material

The following items, in sufficient numbers for a class of 15, are included in the kit:

Multiple copies of 69 Communication and 46 Mathematics Unit Books, with accompanying audio cassettes;

The Blade Dictionary (132 pages, with over 2,000 cued words defined in simple terms, with an introductory description of the cueing system);

Supplementary Reading:
- The Across Canada Series (4 books, 5 cassette tapes)
- The Indian Storyteller Series (3 books)
- The Bare Facts (14 books, 8 cassette tapes)
- A Beer Story and Other Rhymes (1 book)
- The Chokecherry Pit Spitting Contest and Other Rhymes (1 book)

Tape-Text Orientation (1 book, 1 cassette tape)

Reading/Learning Disability Test
- Examiner's booklet
- Candidate's Profile Sheet

Mathematics Placement Test

Instructor's Manual

Instructor's Manual Supplement
(A complete collection of Unit cover pages, which provide a detailed listing of the objectives covered and a list of the materials needed, for each of the 115 Units, plus other references that appear on the Unit covers; also the complete spelling list for the Program, Levels 1 to 4.)

The exact quantities in each kit and the control codes, are indicated in Appendix VI.

Equipment Needed

A typewriter or typing service would save time, but is not essential. It may be modified for BLADE cueing - see Appendix XIV. Access to duplicating equipment of some kind is important.

A flip chart and felt marker may be more useful than a chalkboard, since the pages can be kept for later reference, or torn off and posted on the walls of the room.

Movable tables are better than stationary desks.

Shelving is needed for storage of books and tapes.

A filing cabinet is handy for exercises, tests, and records.

For a class of 15, 12 or 15 small "cassette" tape recorders (or "playbacks" with one or two actual recorders) are needed. In general, instructors have preferred to have a machine for each student, to avoid close scheduling and the possibility of students' waiting for machines.

Time Required for Completion of the Program

In the Saskatchewan NewStart experimental classroom, students who were actually illiterate have completed Level 1 Communication in three and a half to four months. That is the crucial level and area of the program.

However, some students may take a longer time. An advantage of the individualized system is that the slower learner does learn, instead of being left behind to become confused and discouraged and ultimately to drop out.

Implementing the Program in the BLADE Classroom

Varying the Activities

It is not desirable that the literacy student should spend all of his day with a text and tape. There should be some variation in activity. This may take the form of regular or spontaneous group discussions, student helping student, regular break periods of course, newspapers in the classroom, or any of the other activities detailed in Appendix II. A few games are described in Appendix III, and the instructor will probably know of others.

The Intake Process

The Program lends itself to continuous or frequent intake. As a student completes the Program and tests out, another may be enrolled to fill the vacant place. The new student begins at his own level in Mathematics, and at Level 1 Unit 1 or Level 1 Unit 11 in Communication.

If 15 students all begin at one time, the instructor will have considerable testing to do. The Mathematics Placement Test is a group test, but the Reading/Learning Disability Test and the Reading Placement tests need to be administered individually. Combined, the two latter tests require about 10 or 15 minutes per student.

If all the students are newcomers, the instructor can use the Tape-Text Orientation book and tape with a few students at a time, so that each may see what is demonstrated and have a chance to manipulate the controls.

Assigning Materials

The materials are re-usable, and it is not expected that all students will require the same Unit materials at one time. However, some remote communities have experienced a delay in receiving their tape recorders or playbacks, and have had to operate temporarily with several students grouped around one or two borrowed machines. To assist in such an emergency, 16 copies of Unit books 1 to 17 in Level 1 Communication are supplied with the kit.

Even under normal conditions there is likely to be some simultaneous demand for the first few units of Communication and for Units 11 to 14 or 15, as these are the two starting points. After a few units, the different learning speeds of the students will separate them and decrease the simultaneous demands for Units. Of course some students will be working on Mathematics while others work on Communication, and that, too, will relieve pressure on the Communication materials.

At various points in many of the Mathematics Units, the tape and recorder may be relinquished by the student while he uses a study sheet or study cards, or does a series of exercises and an end test.

A Typical Day in a BLADE Classroom

The morning might begin with a discussion or informal conversation about some subject of interest, or the instructor might have a brief conversation with each student as he obtains his materials and settles down to work.

Several students might be using assigned "Math." study cards for ten or fifteen minutes as an automatic review.

From time to time individual students will consult the instructor, to ask for help, to have a book exercise checked, to get a formal exercise, or have it marked. (The instructor marks the work - it is the student who corrects it.)

If two or three students are waiting for the instructor's attention, the instructor may find out what they want and perhaps get another student to help them.

If a student wants a drink of water or coffee, etc., he rises and goes out without disturbing the instructor or anyone else.

There is a muted sound of voices as students respond softly to the tapes, and some of them help each other, and the instructor gives individual help or hears a student read aloud.

Probably all the students in the group take a mid-morning break at the one time. It is ideally a social time, when they talk together or with other students in the institution.

After the break, the instructor might announce a timed practice session, and each student prepares to do what he has planned - perhaps to read silently, use study cards, write his spelling words or sentences, etc. The instructor will announce the timed practice session and give the students an opportunity to prepare for it while the Timed Practice Tape is being put into the machine and adjusted. There are two lengths of session recorded on the tape: one minute, and a half minute - and of course there are three of each in succession. The instructor will select the length he wants to use. If it is the half-minute one, he will have to by-pass the longer periods on the tape. By leaving the volume turned up and using the fast forward control, he will hear "blips" in this pattern:

The blip marked "x" is the beginning of the half-minute periods.

After this, students resume their individual work. A few may be using assigned BLADE supplementary reading books. Those who have reached Level 4 may be using Reader's Digest Skill Builders or cards from one of the SRA "Labs." if not working on one of the Level 4 BLADE units.

The instructor may discover that a reluctant reader has been working on "Math.," which he enjoys, all morning, and must be manoevred into Communication work on which he should be spending the major part of his time.

At some time during a day, a student will probably present himself for an end test, having completed his unit. (He may have spent from one to two, three or more days on the unit, depending on the nature and level of the unit and his speed of learning.) He will bring his book, as he always does whenever he consults the instructor. There will be a boxed note to the instructor following the last frame or paragraph the student covered. This note will probably suggest to the instructor how he may make a quick check to insure that the student is actually ready for the end test. On the other hand, if the student has been especially counselled in the unit to make sure he is ready, and this is a test of his having done so, the note may ask the instructor to give the end test without question.

Except for the first few units in Level 1 Communication, and the oral reading in most of the Communication tests, the student works on the end test independently. The spelling would be time-consuming for the instructor to dictate; therefore the student writes these parts of the tests from a tape - the Unit Tape in Levels 2 to 4, and a Spelling Test Tape in Level 1. (Since he is being tested on the words and sentences he has had an opportunity to learn or review in the unit, there is no need to protect the tape as a test, in the way that the Mathematics tests must be protected.)

Late in the afternoon, each student looks over his practice work, and decides what he will place in his binder and what he will discard. Of course if he has added some new words to his spelling list, they will have been placed in the special book he keeps for this purpose. (It might be an ordinary exercise book, or one of those three-hole-punched exercise books which he could place in the back of his three-ring binder.)

Care is taken to see that the student does not use new additions to his spelling list for study purposes until they have been checked by the instructor. Therefore the instructor will probably have a few spelling entries to check each day. For convenience, the tape directs the student to put the spelling words for the unit into his book just before he is directed to go to the instructor for some other purpose, so that the two things may be done at the one time.

In many literacy classrooms the routine is varied considerably on Friday afternoons, particularly for the last half of the afternoon. The students may watch a useful film, or spend some time playing scrabble or some such educational game. Two students in the early part of Level 2 Math., might play cribbage, as the counting would be good practice for them.

(Some students who are very anxious to progress as far as possible in a limited time would perhaps prefer to concentrate on the tapes and texts. They may not view games - even educational ones - as being important to their goals. The two main purposes of educational

games are motivation and learning: if a student finds them unmotivating, he will probably not experience much learning from them. The instructor might sometimes want to select quiet games to be played by pairs or small groups, so that others could continue to work if they wished. When they observe that the games are being enjoyed by the others, they may decide to participate. If they don't, it might be remembered that they are adults, games are not part of the formal curriculum of the Program, and probably they should be given the privilege of deciding whether they will participate or not.)

Some DOs and DON'Ts for the Instructor

PLEASE DO read the instructor notes placed at intervals throughout the student texts. They are there to help you make the best use of the program with the least work for yourself. The student, when sent to the instructor by the tape, is always requested to take his book with him, and there is invariably an instructor note at that place in the text. A glance at the note will indicate whether there is anything special to be done or borne in mind, or whether some analytical or diagnostic tool has been provided which might not be noticed without reading the notes.

PLEASE DO get a good grasp of the cueing system and the sounds of English. They are basic to the Program and its success.

PLEASE DO study the BLADE materials and know what is in them, as well as the few adjunctive materials that may be selected for use. Only by knowing the materials will the instructor be able to assign remedial work to a student who has missed or forgotten a point. This is especially true in Mathematics, where the student may be proficient enough to start at a fairly high level, yet not have at his command some concept (e.g. place value) dealt with at a lower level.

PLEASE DO encourage each student. Encourage him with well-earned praise; when he needs a "lift" you may not honestly be able to tell him something is good, but perhaps you can show him in what way it is better than it was, and suggest how he can make it better still. Encourage him to keep trying. Encourage him to take time to learn thoroughly. Encourage him to entertain some long-term goals.

PLEASE DON'T worry if he copies a little at first. (He probably will.) Just help him, in a kind way, to discover that there is no one to deceive but himself.

PLEASE DON'T correct his work for him. Mark it, and have him make the corrections.

PLEASE DON'T feel that you have been displaced by a tape recorder. If you let the materials do their job, you will be free to do the more challenging and rewarding work of dealing with each student as an individual and helping him to take the greatest possible advantage of the training opportunity. If a student has obviously rushed through a unit without learning thoroughly, don't waste your time "teaching" him - send him back into the unit to do it properly. The success of the Program depends on your resisting any impulse "to be the tape recorder," and making the best use of your opportunity to guide and assist each student. Too much time spent with one student will be to the disadvantage of the others. There is really no "teaching" in this Program: it is designed to help the student learn. He has to do the learning. You are depended on to play a very important role in guiding, assisting and encouraging that process.

APPENDIX I

DISCUSSION OF DECISIONS MADE DURING DEVELOPMENT

Some decisions made during the development of the BLADE Program, and the reasons for them, are discussed below.

Decisions Related to
Special Needs of Literacy Students

1. Adults who need to acquire literacy are usually not skilled in academic learning; the BLADE Program helps them to learn the techniques of study, discovery, and reasoning which they can use to further their own educational development during and after their training course.

2. They are afraid they cannot learn, and they do not want to have their mistakes exposed. The program begins with a short unit of easy material. Succeeding units increase in length as well as difficulty. The student works independently with an instructional text and a related cassette audio-tape; he does not ask for the Unit End Test until he feels ready for it. The tape does not just "read the book" to the student; it talks about the words he is looking at, provides a model (of language structure, of oral reading, of thought processes in mathematics), conducts drill and practice, tests performance, provides answers, and gives the student an impression of having an instructor beside him constantly - but an instructor who is not going to know about every little slip he makes while learning.

3. The program is designed for individualized learning, which accommodates students learning at different rates, or a student working at different levels in reading and mathematics, or the unavoidable absences adult students sometimes incur through family emergencies. This also accommodates the student who learns but slowly, and who would fall behind and become a potential failure or dropout in a lock-step class paced for the "average" student.

4. Some students have special needs. Those in the "educable retarded" intelligence range need a great deal of attention, and those who have severe perceptual or other learning disabilities need highly professional help which the literacy instructor usually does not have the training or time to give them. Including them in a regular classroom is not to anyone's advantage. The program has not been designed for them.

5. A student learning to read must be fairly fluent in the language of instruction. How fluent has not been established. The program assumes that the student can understand the instructions on the tape.

6. An adult needs to see some value in what he is learning - unlike children, who will learn something "just because it is there." It is not easy to create reading material that is genuinely interesting or useful to the adult literacy student who knows only a few symbols (letters) and their sounds. However, as soon as possible, phrases are introduced, then sentences, paragraphs and stories or factual items.

7. Most adult students appreciate humour (so do children), and it leavens the task of learning. Many of the readings in the BLADE Program are humourous.

8. Non-literate adults have lacked an opportunity to develop the concepts and principles needed for coping effectually with one's environment or for taking full advantage of it. One set of readings called The Bare Facts provides this kind of information.

9. Many literacy students need to improve their skill in oral expression. The program suggests frequent group discussions, on the Bare Facts or other suitable topics.

Decisions Related to Pedagogy, Research or Experience

1. In teaching the reading of English, an approach based on the relationship of sounds to the symbols which represent them is the only approach that keeps "word attack" from being guesswork, or which enables the student to read words that he has not specifically learned. The program is based on sound-and-symbol relationships.

Jeanne Chall[1] concludes, after reviewing the research on learning to read,

> My review of the research from the laboratory, the classroom, and the clinic points to the need for a correction in beginning reading instructional methods. Most school children in the United States are taught to read by what I have termed a meaning-emphasis method.[2] Yet, the research from 1912 to 1965 indicates that a code-emphasis method (i.e. a sound-based method) produces better results, at least up to the point where sufficient evidence seems to be available, the end of the third grade.

1. Jeanne Chall, Learning to Read: The Great Debate (New York: McGraw-Hill Inc., 1967) , p. 307.
2. Dr. Chall qualifies her statement about schoolchildren in the United States by saying, "There are definite signs, however, that more children are now learning by a code-emphasis method than in the early 1960's."

2. The process of "sounding out" a word should be used only the first few times a word is encountered; after that, the word should be recognized almost instantly. The program provides practice in the quick recognition of familiar words.

3. A few students who are capable of learning to read are not able to use an analytical, sound-based approach. For them the tape-texts provide enough look-and-say practice with immediate feedback that they can probably learn by the look-and-say method, although they will not become so independent as those who learn to make full use of the sound-and-symbol relationships.

4. The irregularity of English spelling causes difficulty in learning to read. Some people quote figures to prove that only a small percentage of English words are spelled irregularly. But that percentage is composed mainly of the short, common Anglo-Saxon words which we use every day, and which the student must learn to read early in his literacy training. If these inconsistencies can be overcome in that early period, learning to read will be facilitated. The BLADE Program introduces a cueing system to show how letters or groups of letters should be pronounced when there are alternative pronunciations. The cues appear underneath the normally-spelled words, so that the student actually reads the normal spelling and uses the cues simply to help him identify the word. Short vowels that have their normal sound, and consonants that can be pronounced only one way, are not cued. Here are a few examples of cued words:

pin, pine; thin, that; coat, though, thought, enough
ī ȼ ō ō o uf

runner, batter; nation, partial; mother
ā shun shul u

dance; page; dogs, division; read, read
sȼ ājȼ z zhun ē e

The cues are introduced gradually.

This scheme combines the consistency of a phonemic system with traditional spelling and orthography - unlike some of the systems that use only phonemic spellings and altered letter characters,

which the student must later "unlearn". To avoid over-dependence on the cues, each reading exercise is provided in two forms - with and without cues. At first, the student reads from the cued version until he is sure of the words and meaning; then he reads from the uncued version. Later, when he becomes more familiar with the words and spelling patterns, he may choose to attempt the uncued version first, consulting the cued pages only when necessary. For convenience, the cued and uncued versions face each other on a two-page spread, and identical line positions are maintained for all the words.

5. In a system based on sound-and-symbol relationships, the use of letter names is a hindrance to learning. It is confusing, for instance, to learn that the "letter a" makes the sound "a" as in "hat", that a letter called "h" makes the first sound in "hat", and that a letter called "t" does not have a long "e" at the end of the word "hat". Use of the letter sounds only, during the initial learning period, avoids this unnecessary confusion. This approach would have been selected on an intuitive basis alone; however, there is some support for it in a research report by Jay Samuels, who concludes,[1]

> 'Although letter-name knowledge does not seem to have any beneficial effect on reading, there is evidence that letter-sound training does have a positive effect.'

After the student has learned all the letters and their common sounds, and all the cues, the BLADE Program presents the names of the letters, alphabetic order, and the BLADE Dictionary.

6. Attempting to write irregular words such as "though", "right" or "should", would be difficult for the student while he is still using letter sounds only. Therefore, the introduction of extremely irregular words into the spelling practice is postponed until he knows the letter names. (He must "think" something while he is writing each letter of a word; "thinking" the letter names for very irregularly spelled words is less confusing than thinking the letter sounds, and less disrupting to his concept of common sound-and-symbol relationships. Besides, he can then use oral spelling -- (e.g. t-h-o-u-g-h) as part of his system for learning the irregular words.

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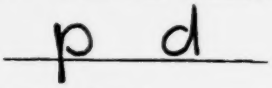
1. S. J. Samuels, "The Effect of Letter-Name Knowledge on Learning to Read," American Educational Research Journal, Vol.9, No.1 (Winter 1972), pp. 65-74.

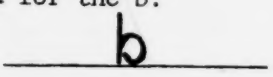
7. The student should not be required to learn more than is necessary and usable at one time; unnecessary ramifications are a hindrance to learning. Systems which confront the student with several equivalent letter forms at the beginning are unnecessarily complicated. The BLADE Program introduces only manuscript printing in the early stages, and only the lower-case letters at first, followed by a few capitals which are almost identical to their lower-case forms.

8. It is more practical for the student to begin reading and "writing" in manuscript print than in cursive writing. He needs to read signs, and this reinforces his learning; he can use other reading instruction materials[1]; and he is not faced with the connecting of the letters while still learning their shapes and sounds. (For instance, the "i" must be formed somewhat differently in the words "pin" and "with".)

9. Children learning to read and "write" in manuscript printing often confuse p, b and d when the "stick and circle" forms are used. They forget where the stick goes in relation to the circle. Besides, when they learn cursive writing later, they must learn new muscular motions for the equivalent forms. For instance, the "circle" of the earlier "p" was probably made in a counter-clockwise direction, whereas that part of the cursive "p" is formed in a clockwise direction. Both of these problems are avoided in the BLADE program by using continuous forms simplified from the cursive forms for "p" and "d":



A continuous form is used for the b:



(A simplified cursive b was avoided to prevent confusion with the numeral 6.) A few additional minor alterations to manuscript forms were made.

10. In some early literacy programs where students were not taught cursive writing, they tried to connect up the printed forms, with varied success, and they completed the programs with a feeling that they had not really learned to write. They had difficulty reading handwritten letters they received. A literacy student should learn to write in cursive script, and the optimum time for him to do this is when he begins to ask for it or to try connecting his manuscript forms. In the BLADE Program, this may occur at any time during

1. For example, the Reader's Digest Skill Builder books, and the Science Research Associates' Reading Laboratories.

Levels 2, 3 or 4. (During Level 1 he is kept busy learning the letters, sounds and cues, and using all of these to read stories. The Unit on cursive script assumes prior completion of Level 1 Communication.)

11. Experience has indicated that adult students feel more comfortable learning to read and "write" from hand-printed materials. The words they read are models for their "writing"; hand-printed models appear more attainable than do models of absolute perfection. In addition, the hand printing of materials offers an opportunity to gradually reduce the printing size in preparation for the reading of ordinary print. In the BLADE Program the student reads hand-printed material until he reaches Unit 20.

12. If a literacy program were to provide pre-printed worksheets for all of the student's practice work, that would not be a truly individualized program, nor would it place the onus on the student to ensure that he has learned. He would complete the entire worksheet whether he needed all of it or not, and he would stop at the end of it whether he had mastered the content or not. The BLADE Program refers continually to "practice paper," which the student uses to the extent necessary for mastery of the tasks set for him by the book and tape.

13. When the instructional materials are re-usable and do not become the property of the student, this can leave him with nothing to review or refer to after he leaves the course. The BLADE Program is so structured that, at the end of the day, the student will discard some of his practice work but place other sheets in a binder for later use. He gradually builds up his own spelling list in this way, for instance.

14. As to arithmetic, students used to memorize the basic number facts, including multiplication facts. Nowadays children may learn these facts over a period of time by referring to a chart. However, in the accelerated literacy courses for adults, this approach more likely results only in the ability to use the chart. The BLADE Program assumes that some basic facts have to be learned from memory so that they can be used, and that the using of them can more profitably reinforce the recall process than the initial learning process.

"Exercises" in the BLADE Program are like informal tests; when completed, the student keeps them in his binder.

15. Many literacy students are more advanced in arithmetic than in reading. In the BLADE Program, the student can progress through the first three levels of tape-text units without having to read words. There is some reading required in Level 4, all of it cued.

16. The contemplation of money is motivating to many students, and the ability to perform calculations with money and solve problems involving money is a practical skill. For these reasons, the objectives covered in a unit are usually applied to amounts of money before completion of the unit.

17. When students spend a long time on addition before learning subtraction, the latter seems like a difficult, reverse operation. For this reason, addition and subtraction are alternated frequently in the early stages of learning both, and much emphasis is placed on the fact that if two plus three equals five, then five minus three must equal two, and so on. However it is recognized that the addition and subtraction number facts, at the "automatic" level, are separate, and the learning of these separate forms of response must be separate tasks. The same applies to multiplication and division, although with more complicated procedures to be learned in these areas, the alternation is less frequent.

18. Principles, theories or other generalities are more easily understood and remembered if the student already has some practical instances in mind. For this reason, a few fractions are introduced incidentally in a unit on measurement before the subject of fractions is formally dealt with. This pattern is followed fairly frequently.

19. A skill is more easily acquired if the student already has part of the performance in his repertoire. For this reason, the BLADE student is taught to add such combinations as 25+3 almost as soon as he learns 5+3. He learns 25+6 (bridging the decade) almost as soon as he learns 5+6, and so on. This is the early establishment of part of the verbal and cognitive repertoire he will need for adding a long column of figures.

20. A student who gets a wrong answer for a mathematics problem, and has only the right answer as feedback, does not know whether he misinterpreted the problem, or used a wrong process, or made an error in calculation. The amount of checking this entails is viewed by adult students as a waste of their time - and rightly so. To avoid this, the BLADE Program shows the work for problems he will correct himself. Furthermore, when a process is first introduced and explained step by step, the student is immediately required to work out that same example by himself, so that he can compare his work and review the explanation if he makes an error.

21. A great deal can be learned by concentrating on one task until it is thoroughly mastered. Dr. Hamden Forkner (Professor Emeritus, Columbia Teachers' College) has often stressed the point that too little use is made of familiar materials while acquiring speed in shorthand writing. Similar wastage seems to occur in having the literacy student move on to a new reading or mathematics exercise before all possible benefit has been derived from the current one. The BLADE Program attempts to avoid this wastage and yet maintain a challenge for the student. It does this by requiring the student to respond in a progressively more difficult or sophisticated manner to one set of stimuli before going on to new stimuli.

22. If a student is to become independent at learning and applying what he has learned, he should not be limited to one style of presentation or response, especially at the higher levels of the course. The BLADE Program seeks to develop flexibility by gradually introducing greater variety in formats and dynamics.

APPENDIX II

ORAL WORK AND OTHER GROUP ACTIVITIES

Such activities as the following may prove to be interesting and useful:

1. Daily or periodic discussion period

   Usually at a regular time, but flexible.

   Students might suggest topics (but instructor should be prepared).

   The Bare Facts books could be a basis.

   Discussions may be difficult to start at first.

   Further activity may be based on a discussion:

   Instructor makes notes

   - of some large words used (correctly or incorrectly),

   - of information the students lacked but did not ask for;

   Instructor writes a short report, adds information that was lacking, gives word study, or any other related, useful, and interesting kind of material;

   Instructor cues the report, and gives it as a "reading" as soon as possible after the discussion took place.

   Possible topics for discussion will suggest themselves during the reading of the items which follow this one.

2. Newspapers (where available)

   Students may read them as a group, and discuss:

   - Bargains in the advertisements (and this could lead to "Math." problems);

   - Where to find certain things in the newspaper - sports, advertisements, etc.;

   - Abbreviations;

   - Headlines (after Level 1).

   (For a student still in Level 1 Communication, the food advertisements would probably be the most useful part of the newspaper.)

3. A Classroom newspaper

This could be produced whether or not real newspapers are available.

Information may come from: Students (individually),

Instructor (things they would like to know about).

The accent should be on local topics with occasional Canadian or World items that have been in the radio or television news.

The paper would be cued. It could be reproduced in some manner, or just passed around.

After all have read it, it is discussed in the group.

Many topics will suggest themselves. One popular one has been a biography of one of the students in each issue until all who are willing to have their biography published have been dealt with.

4. Radio and Television

Discuss what the students have heard and seen.

News - local and broader.

Critical discussions - e.g. the effect of TV cartoons on children.

Discuss informational broadcasts, about such topics as:

- Canada as a country;
- Specific regions of Canada;
- Important things Canadians have done;
- Inventions and discoveries;
- Conservation - the environment
  - wildlife.

5. Tours and field trips

The instructor could give an overview of some possibilities, and let the students choose.

Prepare students before the trip (this could be that day's discussion):

- The instructor usually should explore the place, process, etc. first;
- The instructor could bring pamphlets - show the pictures
  - use the text of the pamphlet as a basis for preparation;
- Give the names of people they will meet;
- Mention signs they will see;
- Discuss how to conduct themselves - courtesy
  - safety
  - the time limits.

Discuss the trip afterwards (this could be the next day's discussion).

6. Films

These will usually require instructor preparation - at least, a preview.

Discuss the film - it can be stopped at appropriate points for discussion,
- it can be watched to end and then discussed.

Even a purely entertaining film can be discussed - what they liked best about it, etc.

For many films, the instructor will have to prepare the students - perhaps with questions for them to answer while they watch, or with background information, etc.

Film subjects may be:

- Subjects purely for entertainment;
- Travel;
- Science, etc.;
- Outdoor life (something close to home is a great treat);
- Effectual living:
  - Making telephone calls (film from Bell Telephone Co.);

- The Eye of the Beholder,
- Four Families.

Questions - some films suggest questions, or have a printed guide;

- failing this, instructor provides questions;
- the questions may be given before or after the students view the film.

7. Read to the group

The instructor:

- Could read a "continued" suspense or other kind of story;
- Could read short interesting or amusing items;
- Could give those who are parents a demonstration of reading to their children, with the explanation that this will help their children to learn to read after they start school;
- Could provide some cued children's stories or other very simple stories for these people actually to read to their children.

8. Invite speakers (where and when possible)

Train students to question them.

This interview could be the topic of the previous and subsequent discussion.

9. If speakers not available, tape interviews

Interview knowledgeable people and tape the interviews.

If students ask questions for which the instructor does not have answers, the answers could be obtained from the source and given to the students later.

10. Games

Should be related to learning in some way - adults don't like to waste time.

Should preferably involve everyone - in one group, or in small groups.

Some suggestions:

- Hangman
- Letterman
- Scrabble
- 20 Questions

See Appendix III for further notes on games.

11. Role playing

Job interview.

Dealing with their children - teaching,
- training "not to do .....",
- Showing child you like him.

Taking something back to the store.

Having a telephone conversation.

Asking for a loan.

Asking for and giving directions - to find a street or building,
- to make or do something.

Reporting an accident.

Talking to your child's teacher.

Telling a salesman you "don't want any".

An interview - being interviewed,
- interviewing someone else,
- knowing when to do which (e.g. in a job interview)

Mock radio broadcast.

APPENDIX III

GAMES

Hangman and Letterman

Two word-guessing games are described below: Hangman and Letterman. The main difference between them is that the latter uses numerical scoring.

This sort of game is useful in a reading class, and is usually enjoyed by the students. They learn to watch for certain combinations of letters. When an "h" appears, they consider "ch", "sh", "th"; a final "g" sets them thinking of "ing". They soon become very much aware that each word must contain a vowel.

The games may be varied to suit the level of the class:

Categories of words may be suggested when the spelling vocabulary of the class permits it;

Plurals may be allowed or disallowed;

The number of letters may be limited;

Duplicate letters in a word may be given credit on the one guess, or may have to be guessed separately;

A numerical scoring scale may be adjusted to match the number skills of the class.

Hangman

This popular game may be played by two players or a group, one player selecting the word to be guessed and the others taking turns at guessing. The one player draws a picture of a hangman's gallows on a sheet of paper or the blackboard. Then he selects a word - perhaps in a prescribed category - and draws a row of dashes, one for each letter in the word.

The first guesser says, perhaps, "Does it have an 'a'?" If the secret word does include an "a", then this letter is written over the proper dash to show its position in the word. However, if the word does not include this letter, a picture of a man's head is drawn in the noose of the gallows. The players continue to make their guesses in turn.

After each correct guess, the letter is written in its proper place; after each incorrect one, another part of the man hanging from the gallows is drawn. At the second bad guess his trunk is drawn; at the third and fourth his two arms; and at the fifth and sixth his two legs. If the group guesses the complete word before the man is finished, they win; if not, they are hanged.

The number of steps required to finish the hanging is usually six, as described, but as the students learn more of the letters and start guessing longer words, the number of steps might be increased. This can be done by including in the drawing the man's neck, nose, eyes, etc., or by including the gallows as one or several of the steps.

Letterman

(This game was described in the January 1971 issue of the Journal of Reading, in an article by Edwina Walsh.)

The students take turns being the leader, or "letterman," who puts the dashes on the blackboard to represent the word he has in mind. The others form two teams, which take turns at guessing the letters of the word.

The rules and scoring may be varied to suit the capabilities of the students. The following is one example:

> For every letter correctly guessed, the team scores 10 points. If a team guesses the entire word, it scores 100 points. Anyone who guesses the word may call it out at any time, even if it is not his team's turn, except when there are only one or two letters left to guess, in which case the team contributing the final letter scores the 100 points.
>
> A penalty of 50 points is imposed if a team tries to guess the whole word and guesses incorrectly. No penalty, however, is imposed for an incorrect letter.
>
> The team which first reaches a given score, such as 500, or the team with the highest score at the end of a given time, is declared the winner.

For students in the early stages of the Program, the scoring could be brought down to a lower level (perhaps with all the scores mentioned divided by 10). Most students able to cope with the game itself would be able to handle the counting up to 50; if not, tokens could be used and simply counted up at the end.

Scrabble

The commercially available game of "scrabble" has been found useful in literacy classes.

Crossword Puzzles

These, in simple form, might be used individually.

They could be made into a group activity if put on a transparency and projected through an overhead projector onto a sheet of "flip chart" paper (2' x 3') taped to the wall.

Spelling Contest

The participants in a spelling contest should all be at about the same level in the Communication course; therefore they would probably have to be grouped for this activity. Perhaps two or three contests could be going on at one time, with students giving out the words for each group of two teams.

The team might score 10 points for each word spelled correctly, and lose 3 points for each one spelled incorrectly. (Using these figures, they could build up an encouraging score, and get some practice in addition and subtraction which they would not get with rounder numbers. Different score numbers could be selected at different times.)

(The old-fashioned "spelldown" might be neither feasible nor desirable in an adult basic literacy group: having to take one's seat after a mis-spell would be embarassing, and would preclude the mis-speller from further participation.)

Twenty Questions

A word in a stated category is given, and the group may take twenty questions to identify it. This game can be tempered in many ways to suit the capabilities of the group: the words may be limited to things in the room, for instance.

APPENDIX IV

THE SOUNDS OF ENGLISH

Consonants

There are eight pairs of consonant sounds, which are differentiated from each other by the use or non-use of the voice.

Say "pet"; now say the "p" sound alone - not the letter name, but just the sound of the "p".

Now say "bet", then say the sound of the "b" alone.

Now say "p", "b", "p", "b". There is no difference in what you do with your lips and your tongue. The only difference is that you use your voice to say the "b" but not to say the "p". In other words, a "p" is an unvoiced "b".

In the same way, a "t" is an unvoiced "d"; a "k" is an unvoiced "g"; an "s" is an unvoiced "z"; and "f" is an unvoiced "v."

Here are the eight pairs, with the voiced consonant shown below the unvoiced one:

Unvoiced:	p	t	k	s	f	th (thin)	sh	ch
Voiced:	b	d	g	z	v	th (the)	zh	j

Other consonant sounds are:

h, w, wh (actually pronounced hw or just w), m, n, ng, l, r. The q sound is nearly always in the combination "qu", and is pronounced kw (as in quite) or "k" as in liquor; the x sound is ks.

Vowels

The main division of vowel sounds is between "long" and "short".

Short: a (at), e (bet), i (sit), o (dot), u (but), oo (look).

Long: $\bar{a}$ (ate), $\bar{e}$ (need), $\bar{i}$ (site), $\bar{o}$ (dote), $\bar{u}$ (cute), $\overline{oo}$ (tool).

Other vowel sounds are:

ou (out), aw (law), oi (boil).

In Canada, little distinction is made between the "aw" sound as in "law", and the "o" sound as in "lot". Therefore, in the BLADE cueing system, the "aw" sound has been cued as "o".

Vowels before r may have a slightly different sound. This is quite noticeable in the sound er, which may be spelled in many ways, such as:

fur	bird	vertical
word	heard	

In these cases, it is hard to hear exactly what vowel sound precedes the r. If you force it into any of the other vowel sounds listed above, it does not sound like "er". This sort of change is less noticeable with "ar" as in "far" (a definite "ah" vowel) and with "or" as in "for" (somewhere between an "oh" and an "aw" vowel).

One vowel actually starts with a consonant sound. It is the long $\overline{u}$. Compare the pronunciation of "cute" and "cool". There is a "y" sound after the "c" in "cute". Say the word "use" - there is no difference between the first sound in that word and the first sound in the word "you" - they both start with a "y" sound. For that reason, this difference has been made in cueing the word "the" before a vowel:

the amount	the upper	BUT the use	the unit
$\overline{e}$	$\overline{e}$	$\overline{u}$ ¢	$\overline{u}$

A person first becoming aware of the sounds of English in an analytical way, must continually remind himself to think in terms of sounds, not letters. For instance, "ch" is one consonant sound, although it has two letters; "x" is two sounds, although it is one letter.

As you have probably observed, there are more sounds in English than there are letters in the English alphabet. Ch, sh , th, wh, ng for instance, are not given a letter to represent them. Another sound not represented is "zh." We listed it above as a voiced "sh." If you just say an "sh," and then say it again using your voice, you will have said "zh." It is the sibilant sound in words like "vision" and "casual."

A single sound, such as "b," "ch," "a," or "oi," is called a phoneme, and a system based on these single sounds is phonemic. The BLADE cueing system is phonemic.

APPENDIX V

THE BLADE CUEING SYSTEM

The following comments and examples are offered as a guide to the main features and the pattern of the BLADE cueing system.

1. The common spellings of short vowel sounds are not cued:

hat bet sit not but look

2. Long vowel sounds are cued as follows:

break	meat	fight	boat	beauty	tool
ā	ē	ī	ō	ū ē	o͞o

3. Silent letters have a slanted line through them:

date	island	hour	bomb	biscuit
ā ⫽	ī⫽	⫽	⫽	⫽

4. Less common or less regular vowel spellings are cued with the sound symbols that indicate their pronunciation:

honey	head	through	dough	enough	cough
u ē	e	o͞o	ō	uf	of

laugh	was	women	busy	many	some	there
af	oz	i	izē	e ē	u ⫽	ā ⫽

5. All of the "er" sounds are cued with those letters, if spelled otherwise:

work	bird	heard	fur	her	further
er	er	er	er		er

6. The "ar" and "or" sounds are learned and not cued:

star	are	park	for	store
	⫽			⫽

They may be used as cues:

four	door	oar
or	or	or

7. Diphthongs are learned as if they were a single grapheme or letter:

oi in words like boil
ou in words like about

They are also used as cues:

boy crowd
oi ou

8. The unvoiced "th" is uncued; the voiced "th" has an underline:

through then thin this
oo

9. The "e" in "the" is left uncued, except when it precedes a word beginning with a vowel sound other than long "u":

the end the ant the island the umbrella
ē ē ē ī ɸ ē u

BUT: the use
ū ɸ

10. The sibilant sounds are cued as they sound, when cues are needed:

birds ducks center zero sand
er z s ē ō

11. The consonant combinations "ch", "sh", "th", "wh" and "ng" are learned as if they were a single grapheme:

church shoe thin where sing
er oo ā ɸ

and are uncued, except where they have a different sound from that represented above:

voiced "th" - then
silent "w" in "wh" - who whole
hoo ẅ ō ɸ
"ng" with "g" pronounced - hungry angry
g ē g ē

12. The "ng" sound in "bank", "link", etc. is not cued - it is learned as the regular sound of "nk":

trunk mink bank

13. Where "n" in the prefix "un" or "in" precedes "k", it will not be confused with the above, because the main part of the word will be bracketed:

unkind unknown

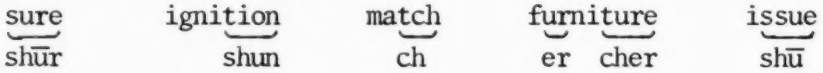
14. All compound words have their parts bracketed for easy recognition:

grandson gooseberry

Hyphenated words are similarly treated:

jack-knife ready-made

15. The "sh", "ch", etc., are used to cue words with an "sh" or "ch" sound spelled in another way:



16. The voiced "sh" sound is usually spelled differently, and is cued as "zh":

17. A curved underline is used for three purposes:

(1) to indicate the letter(s) to which a cue refers when more than one letter is involved:

BUT: son bind

(2) to bracket double consonants and ck, so that the sound will be pronounced only once:

letter	beginning	luck	furry
			er ē

(3) to mark off parts of a compound word, or any meaningful part of a word, that will help students to recognize and understand the word:

grandson	gooseberry	mankind	unbroken
u	oo ɸ ā ē	ī	ō
treatment	**overdose**	**underdog**	**downtown**
ē	ō ō ɸ		ou ou

18. Consonant sounds are cued, when necessary, with whatever symbol represents them:

gentle	gift	center	cork	of	looked
j ɸ		s		v	ɸt

lifted	cooked	crooked
	ɸt	

19. The "qu" combination and "x" are simply different spellings of familiar sounds, and are always cued accordingly:

quick	cheque	liquor	box
kw	k ɸ	k er	ks

20. The ending "le" as in "table" is cued with a silent "e" whether it ends the word or is followed by a "d", "s" or other letter:

bottle	bottled	rifle	rifles	bottleneck
ɸ	ɸ	ī ɸ	ī ɸz	ɸ

BUT: bottler

21. The "schwa" (that almost indistinguishable vowel sound in many unaccented syllables, such as the "e" in "student", the "i" in "accident", the "a" in "soda", or the "o" in "gallon") presents difficulty in any system. It usually sounds like a very brief "u" as in "but" or "put", and therefore it is cued with a "u".

The BLADE cueing system disregards it when the word can be easily recognized without the cue. The "e", "i" and "o" schwa can usually remain uncued - e.g., although the normal pronunciation of "gallon" is "gal-un", "gallon" will surely be recognized. The "a", however, with its uncued sound as in "hat", is much farther from the short "u" sound of the schwa. The uncued schwas in "Canada" might prevent recognition, so it is cued. Examples follow:

Canada	soda	eatable
u u	ō u	ē u ∉

A schwa sound at the beginning of a word is seldom cued:

about	around	afraid
		ā

22. There are words in which dictionaries do not commonly show a schwa sound, although the word cannot be pronounced without one. An example is found in the "le" endings. A word like "able" is usually shown as "ābl," although a schwa sound actually occurs between the "b" and the "l". A similar convention applies sometimes to "n", as in "sweeten": "swēt'n". The BLADE cueing system follows the "le" convention, but not the other one:

able	trouble	sweeten	often
ā ∉	u ∉	ē	∉

23. Sometimes there is a choice of cues. For instance, "trouble" could have been cued as trouble instead of trouble. Where a group of letters occurs
∅ ∉ u ∉
very commonly with the cued sound, they are cued as a group; exceptional combinations are not grouped. Where the omission of one letter is phonically convenient, it is cued as silent:

edge	know	gnat	should	right	nation	boisterous
j	∉ ō	∉	ood	ī	āshun	us

The "d" was included in the cue for "should", because "oul" with the "oo" sound does not commonly appear without the "d". The "t" was excluded from the cue for "right", because the "igh" combination with the "i" sound occurs with the "t" - e.g., "sigh".

There are three possible ways of cueing "sure":

sure	sure	sure
shūr	shōōr	shū ∉

(The BLADE system uses the first, as it is the most convenient.)

24. The pronunciation of the first vowel sound in words like "berry", "bury", "marry", and "Mary" varies in different localities. After considerable inquiry and observation, an arbitrary decision was made to cue all of these vowel sounds as a long "a". It should be remembered that the purpose of cueing is to help the student identify words that are already in his speaking vocabulary, not to tell him how he should pronounce them. A cueing system could not possibly indicate the precise pronunciation without using the hundreds of possible phonetic markings used by the professional linguist.

A phonemic system, not being phonetic, contains many symbols that are only an approximation of the actual sound. For instance, if you say the words "big" and "bit" slowly, you will notice that the two "i" sounds are not the same, though they can both be defined as a "short 'i'". The long "a" cue in such words as the following just happens to involve a more noticeable difference - for some people:

marry	Mary	berry	bury
ā e	ā e	ā e	ā e

It is expected that literacy students will use the cue for identification, then pronounce the word in whatever way is considered correct in their locality.

25. A similar arbitrary decision was made in not cueing the "u" as "oo" in words like:

put	bush	sugar	pull
		shuger	

The cue seemed awkward, and the words quite recognizable without it.

26. Some people make a distinction in pronouncing:

fore and for
dawn and Don

while some do not even hear a difference when others pronounce it. For simplicity, the BLADE cueing system ignores any difference that may exist:

fore	for	morning	mourning	door
ǫ			or	or

BUT: poor
oo

27. The word "eighth" needs a cueing pattern similar to that for the words "hungry" and "angry". There, the "g" was pronounced as part of the "ng" combination, and then pronounced again as an ordinary "g". In the word "eighth", the "t" is pronounced first as an ordinary "t" and then as part of the "th" combination:

APPENDIX VI

List of BLADE Materials

GENERAL ITEMS

Unit		Item	Copies for 1 Class
Book		BLADE Dictionary: C-L1 to L3-Ref. 1	8
Rhymes	1.	A Beer Story: C-L2 to 4-Pm1	2
	2.	The Chokecherry Pit Spitting Contest: C-L2 to 4-Pm2	2
Bare Facts	1.	Parole in Canada: C-L2 to 4-Ls1-B	6
		Tape: C-L2 to 4-Ls1-T	1
	2.	Workmen's Compensation: C-L2 to 4-Ls2-B	6
		Tape: C-L2 to 4-Ls2-T	-
	3.	If Food Costs Too Much: C-L2 to 4-Ls3-B	6
		Tape: C-L2 to 4-Ls3-T	1
	4.	Looking After the Baby: C-L2 to 4-Ls4-B	6
		Tape: C-L2 to 4-Ls4-T	-
	5.	Take It Back: C-L2 to 4-Ls5-B	6
		Tape: C-L2 to 4-Ls5-T	1
	6.	Buying on Credit: C-L2 to 4-Ls6-B	6
		Tape: C-L2 to 4-Ls6-T	1
	7.	Fishing and Hunting Licences: C-L2 to 4-Ls7-B	6
		Tape: C-L2 to 4-Ls7-T	-
	8.	Licenses and Permits: C-L2 to 4-Ls8-B	6
		Tape: C-L2 to 4-Ls8-T	1
	9.	Buying at the Store: C-L2 to 4-Ls9-B	6
		Tape: C-L2 to 4-Ls9-T	-
	10.	Finding a Place to Stay: C-L2 to 4-Ls10-B	6
		Tape: C-L2 to 4-Ls10-T	1

Unit	Item	Copies for 1 Class
Bare Facts (Continued)	11. Unemployment Insurance: C-L2 to 4-Ls11-B	6
	Tape: C-L2 to 4-Ls11-T	1
	12. You and the Landlord: C-L2 to 4-Ls12-B	6
	Tape: C-L2 to 4-Ls12-T	-
	13. What is Vagrancy?: C-L2 to 4-Ls13-B	6
	Tape: C-L2 to 4-Ls13-T	1
	14. Housekeeping: C-L2 to 4-Ls14-B	6
	Tape: C-L2 to 4-Ls14-T	-
Indian Storyteller	1. Joe and the Bear: C-L2-In1	2
	2. A Washing Machine Saves the Day: C-L3-In1	2
	3. A Double Wedding: C-L4-In1	2
Across Canada	1. A Hunting Lesson: C-L2-Cn1	2
	2. The Best Food: C-L3-Cn1	2
	3. The Provinces: C-L4-Cn1-B	2
	Tapes: C-L4-Cn1-T1 to T5	1
	4. The Saddle: C-L4-Cn2	2
Other Items	Tape-Text Orientation (Book): G-L1-1-B	3
	Tape-Text Orientation (Tape): G-L1-1-T	2
	Reading/Learning Disability Test: Examiner's Book, G-DgE1-B	2
	Candidate's Profile Sheet, G-DgE1-Sh	30
	Instructor's Manual: G-L1 to L4-Ref.1	2
	Instructor's Manual Supplement: G-L1 to L4-Ref.2	2
	Timed Practice Tape: G-L1 to L4-Pr.1-T	1
	Spelling Test Tape: C-L1-SpE-T1 & T2	1
	Special Spelling Tape: C-L4-SpE-T	2
	Mathematics Placement Test: M-L1 to L4-DgE	16
	Mathematics Placement Test Key to Answers and Placement: M-L1 to L4-ADgE	2

COMMUNICATION Level 1

Unit	Item	Copies for 1 Class
Unit 1	Unit Book, C-L1-U1-B	16
	Unit End Test, C-L1-U1-E	16
	Unit Tape, C-L1-U1-T	4
Unit 2	Unit Book, C-L1-U2-B	16
	Unit End Test, C-L1-U2-E	16
	Unit Tape, C-L1-U2-T	4
Unit 3	Unit Book, C-L1-U3-B	16
	Study Cards, C-L1-U3-SD	6
	Unit End Test, C-L1-U3-E	16
	Unit Tape, C-L1-U3-T	4
Unit 4	Unit Book, C-L1-U4-B	16
	Study Cards, C-L1-U4-D	6
	Unit End Test, C-L1-U4-D	16
	Unit Tape, C-L1-U4-T	4
Unit 5	Unit Book, C-L1-U5-B	16
	Unit End Test, C-L1-U5-E	16
	Unit Tape, C-L1-U5-T	3
Unit 6	Unit Book, C-L1-U6-B	16
	Unit End Test, C-L1-U6-E	16
	Unit Tape, C-L1-U6-T	3
Unit 7	Unit Book, C-L1-U7-B	16
	Study Cards, C-L1-U7-D	6
	Unit End Test, C-L1-U7-E	16
	Unit Tape, C-L1-U7-T	3
Unit 8	Unit Book, C-L1-U8-B	16
	Exercise, C-L1-U8-X	16
	Study Cards, C-L1-U8-D	6
	Unit End Test, C-L1-U8-E	16
	Unit Tape, C-L1-U8-T	3
Unit 8A	Unit Book, C-L1-U8A-B	16
	Study Cards, C-L1-U8A-D	6
	Unit End Test, C-L1-U8A-E	16
	Unit Tapes, C-L1-U8A-T1 and T2	3

Unit	Item	Copies for 1 Class
Unit 9	Unit Book, C-L1-U9-B	16
	Unit End Test, C-L1-U9-E	16
	Unit Tape, C-L1-U9-T	3
Unit 10	Unit Book, C-L1-U10-B	16
	Unit End Test, C-L1-U10-E	16
	Unit Tapes, C-L1-U10-T1 and T2	3
Unit 11	Unit Book, C-L1-U11-B	16
	Unit End Test, C-L1-U11-E	16
	Unit Tapes, C-L1-U11-T1 and T2	3
Unit 12	Unit Book, C-L1-U12-B	16
	Unit End Test, C-L1-U12-E	16
	Unit Tapes, C-L1-U12-T1 and T2	3
Unit 12A	Unit Book, C-L1-U12A-B	16
	Unit End Test, C-L1-U12A-E	16
	Unit Tape, C-L1-U12A-T	3
Unit 13	Unit Book, C-L1-U13-B	16
	Exercise, C-L1-U13-X	16
	Unit End Test, C-L1-U13-E	16
	Unit Tapes, C-L1-U13-T1 and T2	3
Unit 14	Unit Book, C-L1-U14-B	16
	Unit End Test, C-L1-U14-E	16
	Unit Tapes, C-L1-U14-T1 and T2	3
Unit 15	Unit Book, C-L1-U15-B	16
	Unit End Test, C-L1-U15-E	16
	Unit Tapes, C-L1-U15-T1 and T2	3
Unit 16	Unit Book, C-L1-U16-B	16
	Unit End Test, C-L1-U16-E	16
	Unit Tapes, C-L1-U16-T1 and T2	3
Unit 17	Unit Book, C-L1-U17-B	16
	Unit End Test, C-L1-U17-E	16
	Unit Tape, C-L1-U17-T	3

Unit	Item	Copies for 1 Class
Unit 18	Unit Book, C-L1-U18-B	4
	Exercise, C-L1-U18-X	16
	Unit End Test, C-L1-U18-E	16
	Unit Tapes, C-L1-U18-T1 and T2	2
Unit 19	Unit Book, C-L1-U19-B	4
	Unit End Test, C-L1-U19-E	16
	Unit Tapes, C-L1-U19-T1 and T2	2
Unit 20	Unit Book, C-L1-U20-B	4
	Unit End Test, C-L1-U20-E	16
	Unit Tapes, C- L1-U20-T1 and T2	2
Unit 21	Unit Book, C-L1-U21-B	4
	Unit End Test, C-L1-U21-E	16
	Unit Tape, C-L1-U21-T	2
Unit 22	Unit Book, C-L1-U22-B	4
	Unit End Test, C-L1-U22-E	16
	Unit Tapes, C-L1-U22-T1 and T2	2
Unit 23	Unit Book, C-L1-U23-B	4
	Exercise, C-L1-U23-X	16
	Unit End Test, C-L1-U23-E	16
	Unit Tape, C-L1-U23-T	2
Unit 24	Unit Book, C-L1-U24-B	4
	Unit End Test, C-L1-U24-E	16
	Unit Tapes, C-L1-U24-T1 and T2	2
Unit 25	Unit Book, C-L1-U25-B	4
	Exercise, C-L1-U25-X	16
	Unit End Test, C-L1-U25-E	16
	Unit Tape, C-L1-U25-T	2
Unit 26	Diagnostic Test, C-L1-U26-DgE	16
	Unit Book, C-L1-U26-B	4
	Study Cards, Sets 1-4, C-L1-U26-D1 to D4	4
	Study Sheets (bound), C-L1-U26-Sh	4
	Unit End Test, C-L1-U26-E	16
	Unit Tapes, C-L1-U26-T1 and T2	2

COMMUNICATION Level 2

Unit	Item	Copies for 1 Class
Unit 1	Unit Book, C-L2-U1-B	4
	Supplementary Exercises, C-L2-U1-Sx1, Sx2, Sx3	16
	Exercise 1, C-L2-U1-X1	16
	Unit End Test, C-L2-U1-E	16
	Unit Tapes, C-L2-U1-T1 and T2	2
Unit 2	Unit Book, C-L2-U2-B	4
	Supplementary Exercises, C-L2-U2-Sx1, Sx2, Sx3	16
	Unit End Test, C-L2-U2-E	16
	Unit Tapes, C-L2-U2-T1 and T2	2
Unit 3	Unit Book, C-L2-U3-B	4
	Exercises, C-L2-U3-X1, X2, X3	16
	Unit End Test, C-L2-U3-E	16
	Unit Tape, C-L2-U3-T	2
Unit 4	Unit Book, C-L2-U4-B	4
	Exercises, C-L2-U4-X1, X2, X3, X4	16
	Unit End Test, C-L2-U4-E	16
	Unit Tape, C-L2-U4-T	2
Unit 5	Unit Book, C-L2-U5-B	4
	Exercises, C-L2-U5-X1, X2	16
	Unit End Test, C-L2-U5-E	16
	Unit Tape, C-L2-U5-T	2
Unit 6	Unit Book, C-L2-U6-B	4
	Exercises, C-L2-U6-X1, X2	16
	Unit End Test, C-L2-U6-E	16
	Unit Tape, C-L2-U6-T	2
Unit 7	Unit Book, C-L2-U7-B	4
	Unit End Test, C-L2-U7-E	16
	Unit Tape, C-L2-U7-T	2

Unit	Item	Copies for 1 Class
Unit 8	Unit Book, C-L2-U8-B	4
	Exercises, C-L2-U8-X1, X2, X3	16
	Unit End Test, C-L2-U8-E	16
	Unit Tapes,C-L2-U8-T1 and T2	2
Unit 9	Unit Book, C-L2-U9-B	4
	Exercises, C-L2-U9-X1, X2	16
	Unit End Test, C-L2-U9-E	16
	Unit Tape, C-L2-U9-T	2
Unit 10	Unit Book, C-L2-U10-B	4
	Exercises, C-L2-U10-X1, X2	16
	Unit End Test, C-L2-U10-E	16
	Unit Tape, C-L2-U10-T	2
Unit 11	Unit Book, C-L2-U11-B	4
	Exercises, C-L2-U11-X1, X2	16
	Unit End Test, C-L2-U11-E	16
	Unit Tape, C-L2-U11-T	2
Unit 12	Unit Book, C-L2-U12-B	4
	Exercise, C-L2-U12-X	16
	Unit End Test, C-L2-U12-E	16
	Unit Tapes, C-L2-U12-T1 and T2	2
Unit 13	Diagnostic Test, C-L2-U13-DgE	16
	Unit Book, C-L2-U13-B	4
	Supplementary Exercises, C-L2-U13-Sx1, Sx2	16
	Exercise, C-L2-U13-X	16
	Unit End Test, C-L2-U13-E	16
	Unit Tape, C-L2-U13-T	2
Unit 14	Unit Book, C-L2-U14-B	4
	Exercises, C-L2-U14-X1, X2	16
	Unit End Test, C-L2-U14-E	16
	Unit Tape, C-L2-U14-T	2
Unit 15	Unit Book, C-L2-U15-B	4
	Exercise, C-L2-U15-X	16
	Unit End Test, C-L2-U15-E	16
	Unit Tape, C-L2-U15-T	2

COMMUNICATION Level 3

Unit	Item	Copies for 1 Class
Unit 1	Unit Book, C-L3-U1-B	4
	Exercises, C-L3-U1-X1, X2	16
	Unit End Test, C-L3-U1-E	16
	Unit Tapes, C-L3-U1-T1 and T2	2
Unit 2	Unit Book, C-L3-U2-B	4
	Diagnostic Test, C-L3-U2-DgE	16
	Exercises, C-L3-U2-X1, X2, X3	16
	Unit End Test, C-L3-U2-E	16
	Unit Tapes, C-L3-U2-T1 and T2	2
Unit 3	Unit Book, C-L3-U3-B	4
	Exercises, C-L3-U3-X1, X2	16
	Unit End Test, C-L3-U3-E	16
	Unit Tapes, C-L3-U3-T1 and T2	2
Unit 4	Unit Book, C-L3-U4-B	4
	Exercises, C-L3-U4-X1, X2	16
	Unit End Test, C-L3-L4-E	16
	Unit Tape, C-L3-L4-T	2
Unit 5	Unit Book, C-L3-U5-B	4
	Exercises, C-L3-U5-X1, X2	16
	Unit End Test, C-L3-U5-E	16
	Unit Tape, C-L3-U5-T	2
Unit 6	Unit Book, C-L3-U6-B	4
	Exercises, C-L3-U6-X1, X2	16
	Unit End Test, C-L3-U6-E	16
	Unit Tape, C-L3-U6-T	2
Unit 7	Unit Book, C-L3-U7-B	4
	Supplementary Exercise, C-L3-U7-SX	16
	Exercises, C-L3-U7-X1, X2	16
	Unit End Test, C-L3-U7-E	16
	Unit Tapes, C-L3-U7-T1 and T2	2

Unit	Item	Copies for 1 Class
Unit 8	Unit Book, C-L3-U8-B	4
	Exercises, C-L3-U8-X1, X2	16
	Unit End Test, C-L3-U8-E	16
	Unit Tapes, C-L3-U8-T1 and T2	2
Unit 9	Unit Book, C-L3-U9-B	4
	Exercises, C-L3-U9-X1, X2, X3, X4	16
	Unit End Test, C-L3-U9-E	16
	Unit Tape, C-L3-U9-T	2
Unit 10	Unit Book, C-L3-U10-B	4
	Exercises, C-L3-U10-X1, X2	16
	Unit End Test, C-L3-U10-E	16
	Unit Tape, C-L3-U10-T	2
Unit 11	Unit Book, C-L3-U11-B	4
	Exercise, C-L3-U11-X	16
	Unit End Test, C-L3-U11-E	16
	Unit Tape, C-L3-U11-T	2
Unit 12	Unit Book, C-L3-U12-B	4
	Exercise, C-L3-U12-X	16
	Unit End Test, C-L3-U12-E	16
	Unit Tape, C-L3-U12-T	2
Unit 13	Unit Book, C-L3-U13-B	4
	Diagnostic Test, C-L3-U13-DgE	16
	Exercises, C-L3-U13-X1, X2	16
	Unit End Test, C-L3-U13-E	16
	Unit Tape, C-L3-U13-T	2
Unit 14	Unit Book, C-L3-U14-B	4
	Exercises, C-L3-U14-X1, X2, X3	16
	Unit End Test, C-L3-U14-E	16
	Unit Tapes, C-L3-U14-T1 and T2	2

C O M M U N I C A T I O N Level 4

Unit	Item	Copies for 1 Class
Unit 1	Unit Book, C-L4-U1-B	4
	Exercises, C-L4-U1-X1, X2, X3, X4, X5, and X6	16
	End Test, C-L4-U1-E	16
	Unit Tapes, C-L4-U1-T1 and T2	2
Unit 2	Unit Book, C-L4-U2-B	4
	Exercises, C-L4-U2-X1, X2, X3 and X4	16
	End Test, C-L4-U2-E	16
	Unit Tapes, C-L4-U2-T1, T2 and T3	2
Unit 3	Unit Book, C-L4-U3-B	4
	Exercises, C-L4-U3-X1 and X2	16
	End Test, C-L4-U3-E	16
	Unit Tapes, C-L4-U3-T1, T2 and T3	2
Unit 4	Unit Book, C-L4-U4-B	4
	Exercises, C-L4-U4-X1 and X2	16
	End Test, C-L4-U4-E	16
	Unit Tapes, C-L4-U5-T1 and T2	
Unit 5	Unit Book, C-L4-U5-B	4
	Exercises, C-L4-U5-X1 and X2	16
	End Test, C-L4-U5-E	16
	Special Spelling Tape, C-L4-SpE-T	2
	(This tape contains spelling for Units 7 to 12 also.)	
Unit 6	Unit Book, C-L4-U6-B	4
	Exercise, C-L4-U6-X	16
	End Test, C-L4-U6-E	16
	Unit Tape, C-L4-U6-T	2
Unit 7	Unit Book, C-L4-U7-B	4
	Exercises, C-L4-U7-X1 and X2	16
	End Test, C-L4-U7-E	16

Unit	Item	Copies for 1 Class
Unit 8	Unit Book, C-L4-U8-B End Test, C-L4-U8-E	4 16
Unit 9	Unit Book, C-L4-U9-B	4
Unit 10	Unit Book, C-L4-U10-B	4
Unit 11	Unit Book, C-L4-U11-B	4
Unit 12	Unit Book, C-L4-U12-B	4

(The Special Spelling Tape, C-L4-SpE-T, listed in Unit 5 contains spelling for Units 7 to 12 also.)

M A T H E M A T I C S Level 1

Unit	Item	Copies for 1 Class
Unit 1	Unit Book, M-L1-U1-B	4
	End Test, M-L1-U1-T	16
	Unit Tape, M-L1-U1-T	4
Unit 2	Unit Book, M-L1-U2-B	4
	Study Cards, Sets 1 and 2, M-L1-U2-D1 and M-L1-U2-D2	8
	Exercises 1-4, M-L1-U2-X1 to X4	16
	End Test, M-L1-U2-E	16
	Unit Tape, M-L1-U2-T	4
Unit 3	Unit Book, M-L1-U3-B	4
	Study Cards, M-L1-U3-D	8
	End Test, M-L1-U3-E	16
	Unit Tape, M-L1-U3-T	4
Unit 4	Unit Book, M-L1-U4-B	4
	Study Cards, M-L1-U4-D	8
	End Test, M-L1-U4-E	16
	Unit Tape, M-L1-U4-T	3
Unit 5	Unit Book, M-L1-U5-B	4
	Study Cards, M-L1-U5-D	8
	End Test, M-L1-U5-D	16
	Unit Tape, M-L1-U5-T	3
Unit 6	Unit Book, M-L1-U6-B	4
	Study Cards (Sets 1 & 2), M-L1-U6-D1 and M-L1-U6-D2	8
	Study Sheet, M-L1-U6-Sh	16
	End Test, M-L1-U6-E	16
	Unit Tape, M-L1-U6-T	3
Unit 7	Unit Book, M-L1-U7-B	4
	Exercises 1-2, M-L1-U7 -X1 and X2	16
	End Test, M-L1-U7-E	16
	Unit Tapes, M-L1-U7-T1 and T2	3

M A T H E M A T I C S Level 1
(Cont'd.)

Unit	Item	Copies for 1 Class
Unit 8	Unit Book, M-L1-U8-B	4
	Exercises 1-3, M-L1-U8-X1 to X3	16
	End Test, M-L1-U8-E	16
	Unit Tapes, M-L1-U8-T1 and T2	3
Unit 9	Unit Book, M-L1-U9-B	4
	Study Cards, M-L1-U9-D	8
	Exercises 1-2, M-L1-U9-X1 and X2	16
	End Test, M-L1-U9-E	16
	Unit Tapes, M-L1-U9-T1 and T2	3
Unit 10	Unit Book, M-L1-U10-B	4
	Study Sheet, M-L1-U10-Sh	16
	Exercises 1-2, M-L1-U10-X1 and X2	16
	End Test, M-L1-U10-E	16
	Unit Tapes, M-L1-U10-T1 and T2	3
Units 1-10	Answer Booklets for Exercises in Level I, M-L1-AX	4
Units 1-10	Answer Booklet for Unit End Tests and Unit Work in Level I, M-L1-AEU	1

M A T H E M A T I C S Level 2

Unit	Item	Copies for 1 Class
Unit 1	Unit Book, M-L2-U1-B	4
	Study Cards (Sets 1-2), M-L2-U1-D1 M-L2-U1-D2	8
	Study Sheets 1-2, M-L2-U1-Sh1 and Sh2	16
	Exercises 1-3, M-L2-U1-X1 to X3	16
	End Test, M-L2-U1-E	16
	Nails (sack of about 30)	6
	Unit Tapes, M-L2-U1-T1 and T2	2
Unit 2	Unit Book, M-L2-U2-B	4
	Study Cards (Sets 1-2), M-L2-U2-D1 and D2	8
	Exercises 1-2, M-L2-U2-X1 and X2	16
	End Test, M-L2-U2-E	16
	Unit Tape, M-L2-U2-T	2
Unit 3	Unit Book, M-L2-U3-B	4
	Study Cards (Sets 1-2), M-L2-U3-D1 and D2	8
	Study Sheets 1-2, M-L2-U3-Sh1 and Sh2	16
	Exercises 1-2, M-L2-U3-X1 and X2	16
	End Test, M-L2-U3-E	16
	Unit Tapes, M-L2-U3-T1 and T2	2
Unit 4	Unit Book, M-L2-U4-B	4
	Study Cards (Sets 1-2), M-L2-U4-D1 and D2	8
	Study Sheets 1-2, M-L2-U5-Sh1 and Sh2	16
	Exercises 1-2, M-L2-U4-X1 and X2	16
	End Test, M-L2-U4-E	16
	Unit Tape, M-L2-U4-T	2
Unit 5	Unit Book, M-L2-U5-B	4
	Study Cards (Sets 1-2), M-L2-U5-D1 and D2	8
	Exercises 1-2, M-L2-U5-X1 and X2	16
	End Test, M-L2-U5-E	16
	Unit Tapes, M-L2-U5-T1 and T2	2
Unit 6	Unit Book, M-L2-U6-B	4
	Exercises 1-9, M-L2-U6-X1 to X9	16
	End Test, M-L2-U6-E	16
	Unit Tapes, M-L2-U6-T1, T2 and T3	2

M A T H E M A T I C S Level 2
(Cont'd.)

Unit	Item	Copies for 1 Class
Unit 7	Unit Book, M-L2-U7-B	4
	Study Cards, M-L2-U7-D	8
	Exercises 1-4, M-L2-U7-X1 to X4	16
	End Test, M-L2-U7-E	16
	Unit Tapes, M-L2-U7-T1, T2 and T3	2
Unit 8	Unit Book, M-L2-U8-B	4
	Exercises 1-6, M-L2-U8-X1 to X6	16
	End Test, M-L2-U8-E	16
	Unit Tapes, M-L2-U8-T1, T2 and T3	2
Unit 9	Unit Book, M-L2-U9-B	4
	Exercises 1-4, M-L2-U9-X1 to X4	16
	End Test, M-L2-U9-E	16
	Unit Tapes, M-L2-U9-T1 to T3	2
Unit 10	Unit Book, M-L2-U10-B	4
	End Test, M-L2-U10-E	16
	Unit Tapes, M-L2-U10-T1 to T3	2
Unit 1-10	Answer Booklet for Exercises in Level II, M-L2-AX	4
Units 1-10	Answer Booklet for Unit End Tests and Unit Work in Level II, M-L2-AEU	1

M A T H E M A T I C S Level 3

Unit	Item	Copies for 1 Class
Unit 1	Unit Book, M-L3-U1-B	4
	Study Cards, M-L3-U1-D	16
	Study Sheet, M-L3-U1-Sh	16
	Exercises 1-3, M-L3-U1-X1 to X3	16
	End Test, M-L3-U1-E	16
	Unit Tape, M-L3-U1-T	3
Unit 2	Unit Book, M-L3-U2-B	4
	Study Cards (Sets 1-2), M-L3-U2-D1 and D2	16
	Study Sheet, M-L3-U2-Sh	16
	Exercises 1-4, M-L3-U2-X1 to X4	16
	End Test, M-L3-U2-E	16
	Unit Tape, M-L3-U2-T	3
Unit 3	Unit Book, M-L3-U3-B	4
	Study Cards (Sets 1-2), M-L3-U2-D1 and D2	16
	Study Sheet, M-L3-U3-Sh	16
	Exercises 1-4, M-L3-U3-X1 to X4	16
	End Test, M-L3-U3-E	16
	Unit Tape, M-L3-U3-T	3
Unit 4	Unit Book, M-L3-U4-B	4
	Study Cards (Sets 1-2), M-L3-U4-D1 and D2	16
	Study Sheet, M-L3-U4-Sh	16
	Exercises 1-4, M-L3-U4-X1 to X4	16
	End Test, M-L3-U4-E	16
	Unit Tape, M-L3-U4-T	2
Unit 5	Unit Book, M-L3-U5-B	4
	Exercises 1-5, M-L3-U5-X1 to X5	16
	End Test, M-L3-U5-E	16
	Unit Tape, M-L3-U5-T1 & T2	2
Unit 6	Unit Book, M-L3-U6-B	4
	Study Cards, M-L3-U6-D	16
	Study Sheet, M-L3-U6-Sh	16
	Exercises 1-3, M-L3-U6-X1 to X3	16
	End Test, M-L3-U6-E	16
	Unit Tape, M-L3-U6-T1 & T2	2

M A T H E M A T I C S Level 3
(Cont'd.)

Unit	Item	Copies for 1 Class
Unit 7	Unit Book, M-L3-U7-B	4
	Study Cards, M-L3-U7-D	16
	Study Sheet, M-L3-U7-Sh	16
	Exercises 1-3, M-L3-U7-X1 to X3	16
	End Test, M-L3-U7-E	16
	Unit Tape, M-L3-U7-T	2
Unit 8	Unit Book, M-L3-U8-B	4
	Exercises 1-5, M-L3-U8-X1 to X5	16
	End Test, M-L3-U8-E	16
	Unit Tape, M-L3-U8-T1 & T2	2
Unit 9	Unit Book, M-L3-U9-B	4
	Exercises 1-5, M-L3-U9-X1 to X5	16
	End Test, M-L3-U9-E	16
	Unit Tape, M-L3-U9-T1 & T2	2
Unit 10	Unit Book, M-L3-U10-B	4
	Exercises 1-5, M-L3-U10-X1 to X5	16
	End Test, M-L3-U10-E	16
	Unit Tapes, M-L3-U10-T1 to T3	2
Unit 11	Unit Book, M-L3-U11-B	4
	Exercises 1-3, M-L3-U11-X1 to X3	16
	End Test, M-L3-U11-E	16
	Unit Tapes, M-L3-U11-T1 to T2	2
Unit 12	Unit Book, M-L3-U12-B	4
	Exercises 1-6, M-L3-U12-X1 to X6	16
	End Test, M-L3-U12-E	16
	Unit Tapes, M-L3-U12-T1 to T3	2
Unit 13	Unit Book, M-L3-U13-B	4
	Exercises 1-6, M-L3-U13-X1 to X6	16
	End Test, M-L3-U13-E	16
	Unit Tapes, M-L3-U13-T1 to T2	2
Unit 14	Unit Book, M-L3-U14-B	4
	Exercises 1-7, M-L3-U14-X1 to X7	16
	End Test, M-L3-U14-E	16
	Unit Tapes, M-L3-U14-T1 to T3	2

M A T H E M A T I C S Level 3
(Cont'd.)

Unit	Item	Copies for 1 Class
Unit 15	Unit Book, M-L3-U15-B	4
	Exercises 1-4, M-L3-U15-X1 to X4	16
	End Test, M-L3-U15-E	16
	Unit Tapes, M-L3-U15-T1 and T2	2
Unit 16	Unit Book, M-L3-U16-B	4
	Exercises 1-6, M-L3-U16-X1 to X6	16
	End Test, M-L3-U16-E	16
	Unit Tape, M-L3-U16-T1 & T2	2
Units 1-16	Answer Booklet for Exercises in Level III, M-L3-AX	4
Units 1-16	Answer Booklet for Unit End Tests in Level III, M-L3-AEU	1

M A T H E M A T I C S Level 4

Unit	Item	Copies for 1 Class
Unit 1	Unit Book, M-L4-U1-B	4
	Exercises 1-2, M-L4-U1-X1 and X2	16
	60-inch tape measure	1
	5-foot length of string	1
	End Test, M-L4-U1-E	16
	Unit Tapes, M-L4-U1-T1 and T2	2
Unit 2	Unit Book, M-L4-U2-B	4
	Exercises 1-3, M-L4-U2-X1 to X3	16
	End Test, M-L4-U2-E	16
	Unit Tapes, M-L4-U2-T1 and T2	2
Unit 3	Unit Book, M-L4-U3-B	4
	Exercises 1-4, M-L4-U3-X1 to X4	16
	End Test, M-L4-U3-E	16
	Unit Tapes, M-L4-U3-T1 to T3	2
Unit 4	Unit Book, M-L4-U4-B	4
	Exercises 1-3, M-L4-U4-X1 to X3	16
	End Test, M-L4-U4-E	16
	Unit Tapes, M-L4-U4-T1 to T3	2
Unit 5	Unit Book, M-L4-U5-B	4
	Exercises 1-4, M-L4-U5-X1 to X4	16
	End Test, M-L4- U5-E	16
	Unit Tapes, M-L4-U5-T1 to T3	2
Unit 6	Unit Book, M-L4-U6-B	4
	Exercises 1-4, M-L4-U6-X1 to X4	16
	End Test, M-L4-U6-E	16
	Unit Tapes, M-L4-U6-T1 to T3	2
Unit 7	Unit Book, M-L4-U7-B	4
	Exercises 1-3, M-L4-U7-X1 to X3	16
	End Test, M-L4-U7-E	16
	Unit Tapes, M-L4-U7-T1 and T2	2
Unit 8	Unit Book, M-L4-U8-B	4
	Exercises 1-5, M-L4-U8-X1 to X5	16
	End Test, M-L4-U8-E	16
	Unit Tapes, M-L4-U8-T1 to T3	2

M A T H E M A T I C S Level 4
(Cont'd.)

Unit	Item	Copies for 1 Class
Unit 9	Unit Book, M-L4-U9-B	4
	Exercises 1-5, M-L4-U9-X1 to X5	16
	End Test, M-L4-U9-E	16
	Unit Tapes, M-L4-U9-T1 and T2	2
Unit 10	Unit Book, M-L4-U10-B	4
	Exercises 1-8, M-L4-U10-X1 to X10	16
	End Test, M-L4-U10-E	16
	Unit Tapes, M-L4-U10-T1 to T3	2
Units 1-10	Answer Booklet for Exercises in Level IV, M-L4-AX	4
Units 1-10	Answer Booklet for Unit End Tests and Unit Work in Level IV, M-L4-AEU	1

APPENDIX VII

NON-BLADE MATERIALS

Required

(1) A standard classroom dictionary. The following inexpensive standard classroom dictionary is recommended for Level 4 Communication:

Scholastic Dictionary of American English, available from Scholastic Book Service, 123 Newkirk, Richmond Hill, Ontario. (This provides excellent reference to derivatives, homonyms, meanings of idiomatic phrases, etc., as well as an informative introduction with exercises.) 8 or 9 copies of this might be provided.

(2) Another good dictionary to have in the classroom, at least in one or two copies, is The Beginning Dictionary in the Dictionary of Canadian English set published by W. J. Gage Limited, 1500 Birchmount Road, Scarborough, Ontario. This employs a very simple pronunciation key, fairly similar to some of the BLADE cueing. Students might be trained to use both dictionaries, and to prefer the latter one for pronunciation. Unit 1 in Level 4 Communication is constructed to facilitate this.

Optional

(1) Mathematics

(a) Occupational Preparational Mathematics, Level 1 and

(b) Occupational Preparational Mathematics, Level 2, both by Edward M. Wilson, published by Gray's Publishing Ltd., Sidney, B. C. These inexpensive books contain practical problems, drills and information for work-oriented Canadian adults. The two answer keys should be requested separately.

(c) Several Books in the Master Workbook Series by Ernest M. Reid, B.A., M.Ed., published by School Aids and Text Book Publishing Co. Ltd., Regina and Toronto. The Regina address is 1935 Albert Street.

Suggested items:
Arithmetic Workbook, Grade 2
Arithmetic Workbook, Grade 3 plus answer key
Arithmetic Workbook, Grade 4 plus answer key
My Arithmetic Workbook for Grades 3 to 6.

(2) Reading

(a) The Reader's Digest Reading Skill Builder Series. The sets from Grades 1 to 4 might be used.

(b) The Reader's Digest Adult-Interest-Readers. These range from "Grade" 1 to "Grade" 4.

(c) The Reader's Digest Science Readers, especially the two at Levels 3 and 4.

(d) The Reader's Digest Canadian New Reading Skill Builder Series. 16 books of which 12 are at Levels 1 to 4. Contain exercises and quizzes; annotated Teacher's Editions available.

(e) The Reader's Digest New Reading Skill Builder Audio Lessons. 4 at each level, 1+ to 6, accompanied by 12-page (free) Teacher's Guide. To be used in conjunction with the New Reading Skill Builders (see (d) above). Available as a complete "Master Audio Unit", or in 2-cassette packages.

(f) The Reader's Digest Master Manual for Reading Skill Builders, Science Readers, Adult-Interest Readers, etc.

All of these Reader's Digest items are obtainable from Thomas Nelson & Sons (Canada) Ltd., 81 Curlew Drive, Don Mills, Ontario. A descriptive folder describing these and other items is available from Nelsons; also a detailed Catalog of Educational Materials more fully descriptive of these and the other Reader's Digest materials, including some items in the French language.

(g) One of the various SRA Reading Laboratory kits. If one of these "Labs." is not already available, we suggest writing for a descriptive catalogue to: Science Research Associates, Inc., 44 Prince Andrew Place, Don Mills, Ontario.

(h) A few large wall maps for permanent display. e.g. a map of the school building itself; a map of the city, or a handmade map of the town or community; maps of Canada and North America; a map of "the world" - or, preferably, a globe.

APPENDIX VIII

TESTS

Achievement Tests

If students desiring to enter higher level courses are tested to establish their current academic performance level, the test may reveal that some of them are actually functioning in the literacy range (Grade 0 to 4).

Achievement tests such as the Canadian Test of Basic Skills (CTBS) may be useful for this purpose. That test is available from Thomas Nelson and Sons (Canada) Ltd., 81 Curlew Drive, Don Mills, Ontario.

Other achievement tests may be obtained from various sources such as the Guidance Centre, 1000 Yonge Street, Toronto 289; Science Research Associates, 44 Prince Andrew Place, Don Mills, Ontario.

Standard Progressive Matrices, by J. C. Raven, 1958.

This test may be ordered by registered psychologists from The Institute of Psychological Research, 34 Fleury Street West, Montreal 347, Quebec.

A non-verbal test of mental ability. This was found useful in the Saskatchewan NewStart experimental program. The raw score was used as the criterion. This test is not timed; the candidate works independently while completing it.

In forming a first literacy class, if there are many candidates to select from, a raw score of 35 could be demanded. This might be especially desirable if the instructor is using the BLADE Program for the first time. However, the program is designed for use by anyone above the "retarded" range; therefore, for subsequent courses, a raw score as low as 25 might be accepted.

Mathematics Placement Test (M-L1 to L4 - DgE)

This test is part of the BLADE kit.

The items range from the beginning of Level 2 to the end of Level 4. It is not timed; the student works independently.

The test is not intended to be scored, but simply to be used as an indication of the Units which would or would not be required by the student.

If the student fails the item(s) for a Unit in Levels 2 or 3, he may be placed directly in that Unit; or, if there is some reason to seek a further assessment first, he could be given the end test for that Unit. If there is any doubt as to the student's mastery of the content, he should be placed in the Unit.

If the student cannot attempt the Level 2 items, he should be given the end tests for the ten Level 1 Units, progressively, and be placed in the first Unit in which he does not show mastery. Since few literacy students need Level 1 Mathematics, this testing pattern should not be too time-consuming for the instructor.

Level 4 operations have been included in the test, to provide the student's actual achievement level. However, the student should not be placed in Level 4 until he has completed Level 1 Communication, which will prepare him for the reading required. His interim mathematics assignment might be to do all the word problems in Levels 1 to 3, in which he is probably much less proficient than in the operations; since these problems are all on the tapes, he will not be hindered by lack of reading ability. A student in this situation should spend most of his time on reading and the related skills.

Reading/Learning Disability Test (G-DgE1-B, and G-DgE1-Sh)

Part of the BLADE kit.

This test to reveal the presence of severe perceptual or other learning disabilities has been under development, and has shown promise of being useful. It does not attempt to identify a specific disability.

It is administered personally by the examiner, but requires only ten or fifteen minutes. The candidate is not required to read.

There is an examiner's booklet which gives full instructions and is used by the examiner during the test.

There is a Profile Sheet on which the candidate's performance is recorded.

The test still should be considered as in the development stage.

APPENDIX IX

THE FRY READABILITY GRAPH

This graph, developed by Professor Edward Fry, of the Rutgers University Reading Centre, is useful in estimating the difficulty of reading materials.

It is based on the assumption that long sentences and long words make reading difficult. The results are approximate, because some short technical words may be unfamiliar, and some short words may be combined into unfamiliar phrases. However, this has proved to be a very useful and convenient means of estimation.

The process is as follows:

1. Select three passages near the beginning, middle and end of the material, and count a 100-word sample in each passage. Ignore all proper nouns.

2. Count the number of sentences in each 100-word sample. If the sample ends with an incomplete sentence, estimate the included part of that sentence to the nearest tenth of the sentence. Find the average of these numbers for the three samples.

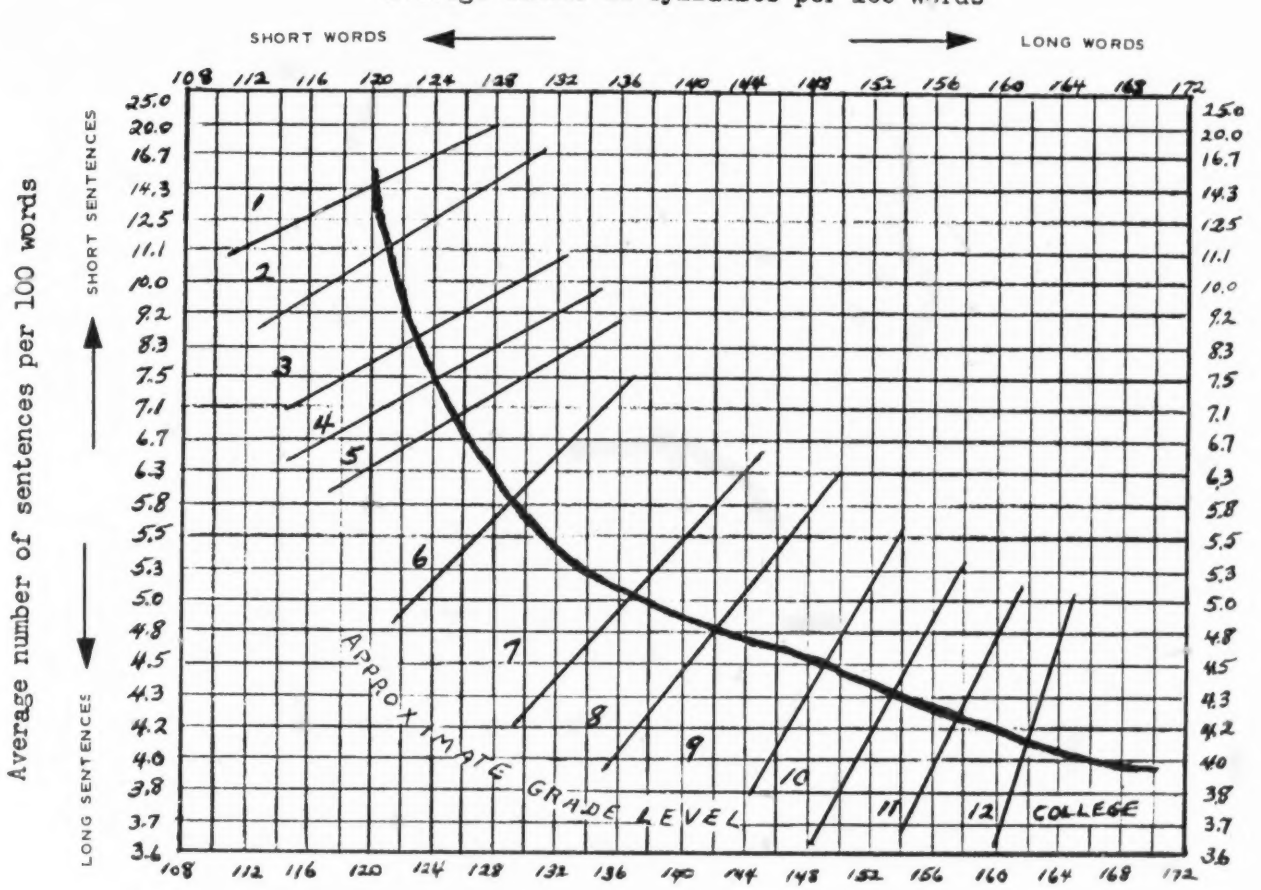
3. Count the total number of syllables in each 100-word sample. (You count one syllable for each vowel sound that is pronounced. For instance, "bat" has one syllable; watch, 1; through, 1; over, 2; inches, 2; themselves, 2; magnetic, 3; easily, 3; continental, 4; dictionary, 4; formidable, 4.) Find the average of these numbers for the three samples.

4. On the graph, find the horizontal line that represents your average number of sentences per 100 words; then find the vertical line that represents your average number of syllables per 100 words. Place a dot where the two lines cross each other. Read the grade level for the section of the graph where the dot falls.

(Please see the graph on the following page.)

GRAPH FOR ESTIMATING READABILITY

by Edward Fry, Rutgers University Reading Center



Explanation.- (a) The more sentences you find in 100 words, the shorter the sentences are, and the easier the reading level is. Therefore, Grade 1 is near the top of the graph, and "college" near the bottom.

(b) The fewer syllables you find in 100 words, the smaller the words, and the easier the reading level. Therefore Grade 1 is near the left of the chart, and college near the right.

(c) If the dot falls far to the right of the lines that cross the main graph line and above them, you have very long words in very short

sentences; if it falls far to the left and below, you have very long sentences made up of very short words. In either case, you might consider the material to be unsuitable for classroom use.

Suggestion.- Counting the hundred words is easy, but counting the syllables needs a different strategy. One almost has to pronounce the words mentally to be aware of the syllables, and one cannot be counting at the same time. A convenient method has been to put a finger down for each syllable and tally the fives in the usual way (𝍸). Then the syllables can be totalled from the tally.

Credit.- The graph was published in the April 1968 issue of the Journal of Reading (a publication of the International Reading Association). The author and publisher generously gave permission for free use of the graph with suitable credit.

APPENDIX X

FORM OF MANUSCRIPT LETTERS AND FIGURES USED IN THE BLADE MATERIALS

a b c d e f g h i j k l m n o p q

r s t u v w x y z

A B C D E F G H I J K L M N

O P Q R S T U V W X Y Z

1 2 3 4 5 6 7 8 9 0

NOTE: Some of the letters are formed differently from the usual manuscripting printing. The reasons for this are discussed on Page 21 in Appendix I.

APPENDIX XI

CONTENT ANALYSIS OF COMMUNICATION AND MATHEMATICS

C O M M U N I C A T I O N

Level 1

(Every Unit includes reading, and the writing of words or sentences from dictation; therefore these activities are not necessarily mentioned after the first few Units. This content analysis is not intended to reflect the specific activities in the Units, but the introduction of new content and progressively challenging skill requirements.)

Unit 1 - Analyze "pan" and sound "p", "a" and "n"; write (print) these letters

Read and write "pan"

Sound, at sight, the letters learned

Unit 2 - Analyze "pin" and sound the "i"; write "i"

Read and write from dictation the learned words (pin and pan)

"Sound", and write from dictation, all the letters learned.

Unit 3 - Analyze "can" and sound the "c"; write "c".

Read, and write from dictation, all learned words.

Apply knowledge of sounds and symbols (letters) in reading an unlearned word, "cap"

Unit 4 - Analyze "cat" and sound "t"; print "t"

Analyze "bat" and sound "b"; print "b"

Apply knowledge in reading unlearned words, "it", "tan"

Read, and write from dictation, all learned words

(Communication, Level 1)

Unit 5	Analyze "mat" and sound "m"; write "m"
	Analyze "sat" and sound "s"; write "s"
	Apply knowledge in reading unlearned words, "sin"
	Read, and write from dictation, many learned words
Unit 6	Analyze "dam" and sound "d"; write "d"
	Analyze "top" and sound "o"; write "o"
	Apply knowledge in reading unlearned words "mad"; "bad", "sad", "not"
	Read, and write from dictation, many learned words
	Student's responsibility for learning is emphasized
Unit 7	Analyze "got" and sound the "g", write "g"
	Apply knowledge in reading "dog", "dig", "big", "bag"
	Concept of "in"
	Read, and write (a) from a model, (b) from pictures and (c) from dictation, phrases containing preposition "in"
Unit 8	Analyze "hat" and sound the "h"; write "h"
	Apply knowledge in reading other words beginning with "h"
	Concept of "on"
	Read, and write (as above) phrases containing the preposition "on"
	Concept of plurals
	Read, and write from dictation, plurals formed by adding "s" to learned nouns

(Communication, Level 1)

Unit 8A

A general Unit dealing with:

Correspondence between written and spoken words in a sentence, used as a clue

Capital letter for a name or first word in a sentence; "dot" at end of sentence

Oral reading -rhythm, voice inflections, pause at comma, etc.

Recognize and say familiar words instantly

"Discover" letters and sounds "r" and "f"

Do a quick phonic analysis by comparing a new word with a familiar one

Write familiar words from dictation in increasingly long groups

Capital "S"

Unit 9

Analyze "gun" and sound the "u"; write "u"

Differentiate in pronounciation between "c" (unvoiced) and the sound "g", which is the same but voiced

Apply knowledge to read new words in chained fashion (only one letter different): gun, gut, cut, but, bug.

Sound the initial "st" blend and write words containing it.

Read short sentences including words not previously read but composed of familiar sounds

Capital "T"

Unit 10

Analyze "last" and sound the "l"; write "l"

Analyze "leg" and sound the "e"; write "e"

Drills with sentences and words, for:
word recognition,
word attack,
comprehension,
fluency, oral rhythm, inflection, etc.

Write the sentences from models, and words from dictation

Use frame numbers for locating content

(Communication, Level 1)

Unit 11

Analyze "pine" and sound the long "ī"; observe function of silent "e"

Initial and final blends

First cues: ī, u and ȩ

Unit 12

Read "kid" and sound the "k"

Read "that" and sound the "th"

Read "good" and sound the "oo"

Cue: "oo" as in "could"

Double consonants and "ck" banded as cue

Capital letters "I", "C", "M"; "H" (incidental)

Unit 12A

A general Unit focusing on:

Natural word emphasis in a sentence

Use of cues as a key to new words

Use of context to identify unfamiliar elements

Unit 13

Read "shot" and sound the "sh"

Read "he" and sound the long "ē"

Read "kettle" and sound "le" ending

Integrate thoughts in a paragraph for meaning

Fill in missing elements in a paragraph, through use of content

Cue for words within words

Capital "P"

(Communication, Level 1)

Unit 14

Read "red" and sound the "r"; write "r"

Interpret relationship of direct quotations to their context

"er" sound and "er" as a cue

Read and comprehend short paragraphs, first cued, then uncued

Unit 15

Read "thin", sounding unvoiced "th"

"th" as cue to voiced "th"

Read "soon" and sound the long "oo"

"oo" as a cue to different spellings of the sound

Initial capital letters "R" and "B"

Unit 16

Read "foot" and sound the "f"; write "f"

"f" as a cue

Sound of "or"

"or" as a cue

Sound of "z"

"z" as a cue

Initial capital letters "H" , "A", "F", "D"

Read three long stories, cued and uncued

"s" as cue to soft "c"

"you" as a sight word (the only one taught)

Unit 17

More initial and final blends

Interpret story (cued and uncued) with no explanation or help on the tape.

(Communication, Level 1)

Unit 18

Read "lake" and sound the long "ā"

Use familiar cues to read words containing letters not yet learned (e.g. saw, my, they)

Write sentences from dictation after opportunity to study them

Read a new uncued story containing words used in a previous cued story, and answer "comprehension questions"

Distinguish between sentences and non-sentences

Rearrange words of a scrambled sentence

Unit 19

Read "sing" and sound the "ng", "ing", "ong", "ang", "ung"

Omission of silent "e" before "ing"

Read "we" and sound the "w"

Write from dictation short sentences containing familiar words, without previous study

"w" as a cue in "one", etc.

Read an amusing story for pleasure, in cued and uncued form, without having it read on the tape

Capital "W" and "O"

Unit 20

Read "a" and "g" in ordinary Roman print (contrasted to the familiar "manuscript" printing "a" and "g"

Read "hope" and sound the long "ō"

"ō" as a cue

Words ending in "aw"

Read "car" and sound the "ar"

"ar" as a cue

(Communication, Level 1)

Unit 21

Read "visit" and sound the "v"

"v" as a cue (e.g. in "of")

Read "lucky" and sound final "y" as "ē"

"ē" as cue to final "y" with long "ē" sound

Read "my"

"ī" as cue to final "y" with long "ī" sound

Read aloud, at sight, privately to the instructor, a short paragraph in cued and uncued form

Unit 22

Read "bank" and sound the "nk"

Read "out" and sound the "ou"

More initial and final blends

Contractions - e.g. "couldn't"; translate to complete form

Write simple sentences with familiar words, from dictation, without previous study

Read a short, simple passage orally, in uncued form, without a previous opportunity to read it silently

Unit 23

Read "chin" and sound the "ch"

"ch" as a cue (e.g. furniture)

"ou" as cue to "ow" etc. with that sound

Read "cute" and sound the long "ū"

"ū" as a cue

Fill in missing words in a sentence

Read a cued story aloud at sight (privately, to the instructor) and answer questions about it

Recall a story read silently at a previous time, and answer questions about it

(Communication, Level 1)

Unit 24

Read "when" and sound the "wh"

Read "jam" and sound the "j"

Read "oil" and sound the "oi"

"oi" as a cue

Read rhymed material aloud (privately, to the instructor) and produce the rhythms of the language demanded by this kind of material

Capital "J"

Unit 25

Read "yes" and sound the initial "y"

Read "box" and sound the "x"

"ks" as a cue to "x"

Read "quill", and sound the "qu"

"kw" as a cue to "qu"

Read "hungry" and sound the "g" as well as the "ng"

Cue for "ng plus g"

"j" as a cue (e.g. as in gentle)

Read a cued passage and answer questions about it in writing

Unit 26

The alphabet (names of the letters, formerly learned only by their sounds)

Alphabetic order

Orientation to the BLADE Dictionary.

Recognize and write all of the capital letters

Know "automatically" whether a letter comes earlier or later in the alphabet than a given letter.

Capital "N"

C O M M U N I C A T I O N

Level 2

UNIT 1	PLURALS (A)	(how formed, a few irregulars)
UNIT 2	MEANING FROM CONTEXT (A)	(picture clues, nonsense words)
UNIT 3	COMPOUND WORDS	
UNIT 4	STRUCTURAL ANALYSIS (A)	(adding ed, ing; finding root; silent "e" rule)
UNIT 5	CONTRACTIONS (A)	("have, will,be" families of contractions)
UNIT 6	ABBREVIATIONS (A)	(abbreviations for: days of week, months of year, cooking, measuring, travelling)
UNIT 7	SENTENCES	(recognizing and completing sentence fragments)
UNIT 8	PUNCTUATION	(three common end punctuation marks)
UNIT 9	CAPITALIZATION	(capitalizing proper nouns)
UNIT 10	INTERPRETING SIGNS	(common traffic and environment signs)
UNIT 11	SEQUENCE	(unscramble pictures, sentences, short paragraphs)
UNIT 12	INTERPRETING LABELS (A)	(introduction to hazard warnings and other vocabulary found on labels)
UNIT 13	PLURALS (B)	(rules for f and fe words; applying all rules learned (Units 1 and 13))
UNIT 14	STRUCTURAL ANALYSIS (B)	(rules for doubling final consonant)
UNIT 15	CONTRACTIONS (B)	(will, shall, would, have contractions, used in a variety of language situations)

NOTE: Reading selections and spelling are included in Levels 2 to 4.

C O M M U N I C A T I O N

Level 3

UNIT 1	UNDERSTANDING DIRECTIONS (A)	(on labels - what to use for, and how to use)
UNIT 2	ABBREVIATIONS (B)	(abbreviations for provinces of Canada and words needed to fill out forms)
UNIT 3	SYNONYMS	(choose synonyms, use in context)
UNIT 4	ANTONYMS	(same-opposite, meaning from context)
UNIT 5	WORDS WITH MULTIPLE MEANINGS	(get meaning from dictionary and context)
UNIT 6	MEANING FROM CONTEXT (B)	(comparison and contrast clues)
UNIT 7	STRUCTURAL ANALYSIS (C)	(change "y" to "i", add er, est to root words using all known rules)
UNIT 8	MEANING AND WORD FUNCTIONS (A)	(in sentences)
UNIT 9	RECALLING DETAILS (A)	(answer: who, when, where, how questions from short paragraphs)
UNIT 10	MAKING INFERENCES (A)	(predicting outcomes)
UNIT 11	INTERPRETING LABELS (B)	(prescriptions, patent medicines etc.)
UNIT 12	HOMONYMS	(in word pairs and in context of sentences)
UNIT 13	PLURALS (C)	(final Unit; change "y" to "i", use all rules)
UNIT 14	STRUCTURAL ANALYSIS (D)	(meaning of common prefixes, change meaning by adding prefixes)

NOTE: Reading selections and spelling are included in Levels 2 to 4.

COMMUNICATION

Level 4

UNIT 1	USE OF A STANDARD CLASSROOM DICTIONARY	(format; use for various purposes)
UNIT 2	ABBREVIATIONS (C) AND ORDERING FROM A CATALOGUE	(includes adjusting to different formats of order forms)
UNIT 3	FILLING OUT FORMS	(job application, bank forms and other business forms)
UNIT 4	MEANING AND WORD FUNCTIONS (B)	(phrases, clauses, negatives, idiomatic expressions, complicated sentences)
UNIT 5	RECALLING DETAILS (B)	(answering questions or listing facts after reading a short selection only once)
UNIT 6	MAKING INFERENCES (B)	(reading short paragraphs and selecting or providing what can be logically inferred)
UNIT 7	UNDERSTANDING DIRECTIONS (B)	(in chart forms and other forms)
* UNIT 8	WRITING IN CURSIVE SCRIPT	(formation of letters and the connecting of them - lower and upper case)
UNIT 9	LETTER AND NOTE WRITING	(business and friendly letters; note to teacher and employer, etc.)
UNIT 10	READING A NEWSPAPER	(parts, where to find them, and how to read them)
UNIT 11	USING A TELEPHONE	(telephone and directory; terminology)
UNIT 12	PARTS OF A BOOK	(recognize parts; use table of contents and index)

* Unit 8 may be assigned any time after the student has completed Level 1 Communication.

NOTE: Reading selections and spelling are included in Levels 2 to 4.

M A T H E M A T I C S

Level 1

Unit 1	Count from 1 to 10, and read these numerals
Unit 2	Match these numerals to groups of objects
Unit 3	Write numerals in order, from 1 to 10 Write them from dictation, in random order Write numerals for groups of objects
Unit 4	Concept of zero Place zero in number series State and write relationships between numbers (the number that comes after, or before, etc.)
Unit 5	Count from 10 to 20 Write numbers, 10 to 20 State and write relationships
Unit 6	Count from 20 to 100 Write numbers, 20 to 100 State and write relationships
Unit 7	Identify place value for "ones," "tens," "hundreds Count beyond 100 Read, and write from dictation, numbers up to 999 Introduces simple oral problems
Unit 8	Refer to ones, tens or hundreds place, to compare size of two non-consecutive numbers, and arrange numbers in ascending or descending order Problems
Unit 9	Zero as a place holder Place value to the "thousands" place Refer to ones, tens, hundreds or thousands place, to compare size and arrange numbers in order Count from 1,000 to 1,050 Read, and write from dictation, numbers up to 9,999 Problems
Unit 10	Read numbers up to 6 digits Identify place value of any digit up to six digits Compare sizes, and arrange numbers in order Canadian coins and their relationships Apply all learned skills to amounts of money Problems

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NOTE: The above items indicate the limits of each unit - not the pedagogical progressions within the unit.

(Mathematics)

Level 2

Unit 1 — Addition - the concept introduced
Symbols "+" and "=", and the term "sum"
Addition number facts, sums not exceeding 9 (no zeros)
Extend basic number facts to higher decades (e.g. 25 + 3) with no bridging of decades (e.g., not 25 + 6)
Problems

Unit 2 — Subtraction - concept introduced, as reverse of addition
Symbol "-" and term "difference"
Subtraction number facts, up to 9-8 (no zeros)
Problems

Unit 3 — Addition - functions of zero
Addition number facts up to 9+9=18
Extend basic number facts into higher decades, with bridging of decades
Problems

Unit 4 — Subtraction - functions of zero
Subtraction number facts up to 18-9=9
Problems

Unit 5 — Addition and subtraction -
Within the range of number facts learned,
- add or subtract according to the sign + or -
- add or subtract according to the meaning of a word problem
Select and use relevant information from a word problem containing both relevant and irrelevant information

Unit 6 — Introduces vertical format in addition and subtraction
Add two numbers with up to 6 digits
Subtract, with numbers up to 6 digits (no borrowing)
Problems

Unit 7 — Addition - introduces carrying
Add long single or double column of numbers
Write from dictation, and add, several numbers containing an unlike number of digits
Problems

Unit 8 — Subtraction - introduces borrowing
Subtract, with single or multiple borrowing
Problems

NOTE: The above items indicate the limits of each unit - not the pedagogical progressions within the unit.

(Mathematics, Level 2)

Unit 9
- Prove subtraction by adding
- Prove addition by adding in opposite direction
- Apply further safeguards to avoid errors
- Count by tens, fives and twos, starting from zero, and apply in reading a thermometer scale and clock dial
- Roman numerals up to XII (on clock dials)

Unit 10
- Problems based on all concepts and operations learned to date, including multiple-step problems and the use of proofs and safeguards

Level 3

Unit 1
- Multiplication - concept introduced
- Symbol "x" and term "product"
- Multiplication number facts up to 4x4
- Problems (considerable assistance given by tape and book)

Unit 2
- Multiplication number facts up to 6x6
- Commutative principle
- Problems (decreased assistance)

Unit 3
- Multiplication number facts to 8x8
- Commutative principle
- Problems (little assistance)

Unit 4
- Multiplication - completes basic number facts, to 9x9
- Commutative principle
- Problems (no assistance)

Unit 5
- Multiplication - function of zero
- Products of numbers from 0 to 9
- Problems involving multiplication
- Problems involving multiplication and addition or subtraction
- Problems involving all three operations

NOTE: The above items indicate the limits of each unit - not the pedagogical progressions within the unit.

(Mathematics, Level 3)

Unit 6 Division - concept introduced
Symbol "÷" and term "quotient"
Division number facts, where 25, 9 and 9 are respective limits for dividend, divisor and quotient
A number divided by 1
A number divided by itself
Dual concept: when a total number represents a number of equal groups, find either the number of groups or the number in each group, when given the other two components
Problems (considerable assistance given by tape and book)

Unit 7 Division - prove division by multiplying
Division number facts where 81, 9 and 9 are respective limits of dividend, divisor and quotient
Problems (little assistance)

Unit 8 Problems that involve division combined with other operations

Unit 9 Multiplication - introduces vertical format
Multiply up to 1-digit number times 4-digit number, with carrying
Problems

Unit 10 Multiplication - up to 2-digit times 4-digit number, with carrying
Problems

Unit 11 Multiplication - up to 4-digit times 4-digit number, with carrying
Problems

Unit 12 Division - introduces long division
The symbol) and the terms "dividend" and "divisor"
Divide up to 4 digits by 1 digit, no remainder
Prove quotient by multiplying
Problems

Unit 13 Division - up to 4 digits by 1 digit, with remainder
Prove quotients that have a remainder
Dividends with more than 4 digits
Problems

Unit 14 Division - by a 2-digit number
Problems

Unit 15 Division - by a 3-digit number
Calculate an average
Problems involving division and averages

Unit 16 Multiplication and Division - problems involving all operations and concepts learned in Level 3, singly and in combination, in grouped and random order.

NOTE: The above items indicate the limits of each unit - not the pedagogical progressions within the unit.

(Mathematics)

Level 4

Unit 1 Linear Measurement in whole inches, feet, yards, miles
Estimation of length of units (attempting to place hands on a piece of string, one foot or 1 yard apart, etc.)
Conversion from one unit to another
Problems

Unit 2 Linear Measurement in fractional units
Read and write $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$ inches; also $\frac{3}{4}$, $\frac{5}{8}$ etc.
Convert inches and/or feet to yards, when answer ends in $\frac{1}{2}$, $\frac{1}{4}$ or $\frac{3}{4}$ yard
Problems

Unit 3 Liquid Measure (pints, quarts, gallons, cups, fluid ounces)
Conversion between any of the above units of measurement
Difference between Imperial measures and American measures
State the meaning of $\frac{1}{2}$, $\frac{1}{4}$, $\frac{3}{4}$, $\frac{1}{3}$, $\frac{2}{3}$
Find $\frac{1}{2}$, $\frac{1}{4}$ or $\frac{3}{4}$ of a given number of fluid ounces that is divisible by 4

Unit 4 Weight Measure (pounds, ounces, tons)
The scale
Conversion between units of weight measurement
Add, subtract, multiply or divide an amount in pounds and ounces
Problems

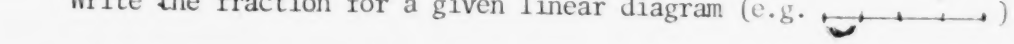
Unit 5 Measurement of time (hours, minutes, seconds)
The "5:50" form for "ten minutes to six"
Divide amounts of time
Problems

Unit 6 Measurement of time (a.m., p.m., week, month, year)
Calendar, and calculations with it
Conversion
Time zones in Canada
Problems

NOTE: The above items indicate the limits of each unit - not the pedagogical progressions within the unit.

(Mathematics, Level 4)

Unit 7 Fractions I

Fractional bar symbol; terms "fraction", "denominator" and "numerator"
Fraction as an amount, and as a signal to divide
Write the fraction for a given linear diagram (e.g. )

Unit 8 Fractions II

Multiplication of two fractions
Terms "proper fraction" and "improper fraction"
Reduction to lowest terms
Mixed numbers

Unit 9 Fractions III

Change mixed number to improper fraction
Cancel to reduce numerator and denominator before multiplying
Divide, with various combinations of proper fractions, mixed numbers and whole numbers
Select the proper process in a varied series of examples
Problems

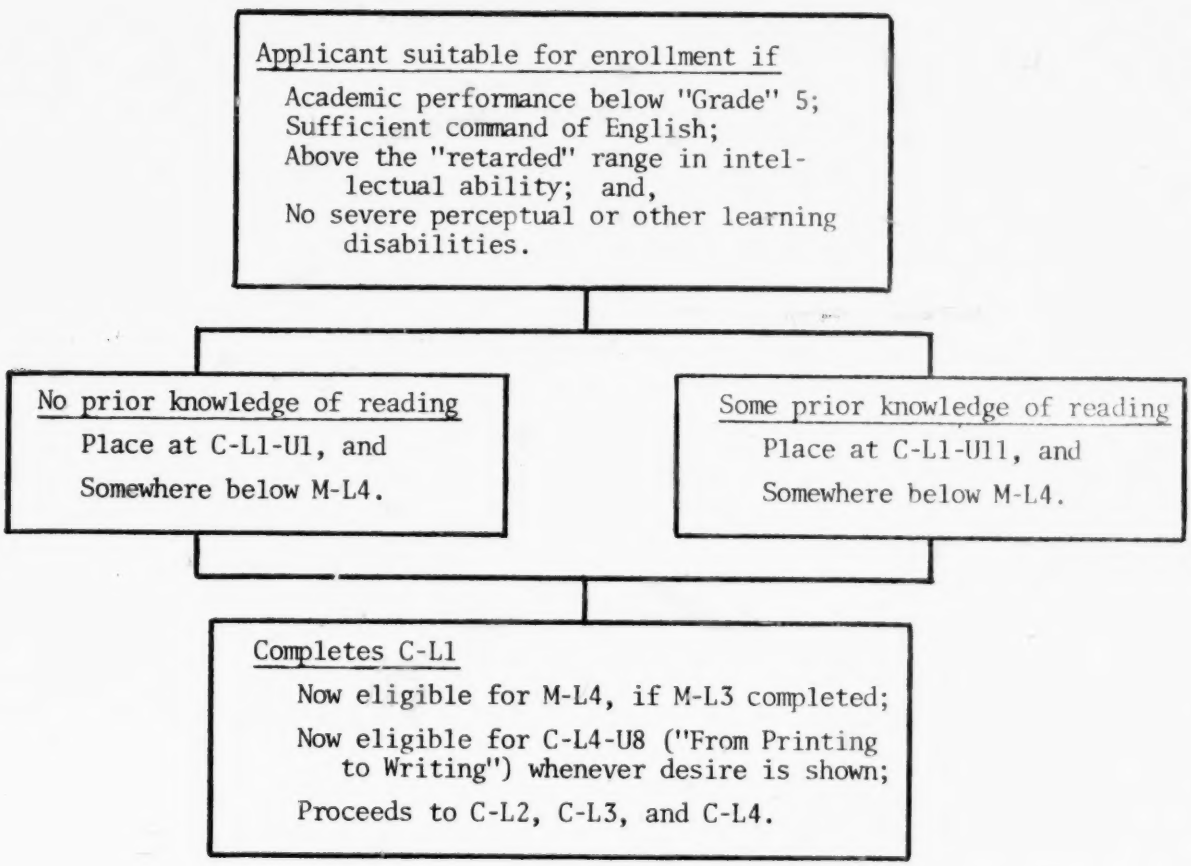
Unit 10 Fractions IV

Add fractions with common denominator
Term "common denominator"
Find LCD (abbreviation not used)
Combine finding LCD with adding or subtracting, using a pattern of fractional bars as a guide
Add or subtract, in various combinations of fractions, mixed numbers and whole numbers
The same in vertical format, without and with borrowing.
Problems

NOTE: The above items indicate the limits of each unit - not the pedagogical progressions within the unit.

APPENDIX XII

ENROLLMENT AND PLACEMENT CHART


Applicant suitable for enrollment if
Academic performance below "Grade" 5;
Sufficient command of English;
Above the "retarded" range in intellectual ability; and,
No severe perceptual or other learning disabilities.
No prior knowledge of reading
Place at C-L1-U1, and
Somewhere below M-L4.
Some prior knowledge of reading
Place at C-L1-U11, and
Somewhere below M-L4.
Completes C-L1
Now eligible for M-L4, if M-L3 completed;
Now eligible for C-L4-U8 ("From Printing to Writing") whenever desire is shown;
Proceeds to C-L2, C-L3, and C-L4.

CODES: C - Communication
M - Mathematics
L - Level
U - Unit

APPENDIX XIII

CONTROL CODES

G -- General
C -- Communication
M -- Mathematics

L -- Level
U -- Unit (e.g. C-L1-U26)

B -- Book (e.g. C-L1-U26-B)
T -- Tape
D -- Study Cards
Sh -- Study Sheet or other (e.g. Profile Sheet)
X -- Exercise
S -- Supplementary (e.g. C-L2-U1-SX2)
E -- Test (Achievement)
DgE -- Diagnostic Test
AX -- Answer Booklet for Exercises
AEU -- Answer Booklet for End Tests & Unit Work

In -- Indian Storyteller Series
Cn -- Across Canada Series
Ls -- The Bare Facts
Pm -- Rhymes

Pr -- Practice (e.g. C-L1 to L4-Pr.1-T)
Sp -- Spelling (e.g. C-L1-SpE-T)

APPENDIX XIV

MODIFICATION OF A TYPEWRITER TO FACILITATE BLADE CUEING

If the instructor expects to create "local" or other materials in any great quantity, a typewriter might be modified to include the cueing characters which would otherwise have to be done by hand.

Only four such characters are required:

(1) A single curve (underneath): ‿ e.g. box‿

(2, 3) Two separate curves (underneath): ‿ ‿ e.g. let‿‿ter

(4) A single "overline", to strike just above the letter: ‾ e.g. hold, pint
$\overline{o}$ $\overline{i}$

Characters 2 and 3 are constructed to connect with the underline for long "curves": ‿ ‿ ‿ ‿ e.g. la‿‿‿‿ugh

A special BLADE cueing head for the IBM Selectric Typewriter, was used in the preparation of the second edition of the BLADE Communication materials. It was produced to BLADE specifications by Camwill Inc., 835 Keeaumoku Street, Honolulu, Hawaii, to whom the developers were referred by IBM.

Character 1 was substituted for the exclamation mark. (The latter can be made by combining the apostrophe and period.)

Character 2 was substituted for the comma which requires use of the shift key.

Character 3 was substituted for the period which requires use of the shift key.

Character 4 was substituted for the "[]" character.

The arrangement for characters 2 and 3 is convenient, because a short curve (‿ ‿ letter) can be executed on adjacent keys with the shift key down, and a long curve can be executed with these plus the underline (‿ ‿ ‿ ‿ laugh) with the shift key down throughout.

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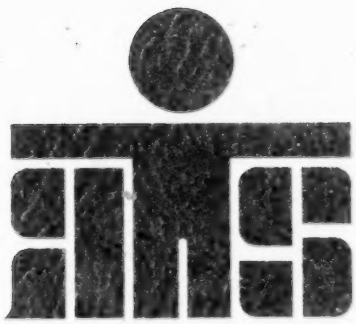

TRAINING RESEARCH & DEVELOPMENT STATION
DEPARTMENT OF MANPOWER AND IMMIGRATION